



Request for Clarification Response

May 24, 2019

Request for Proposal (RFP) Number: 47800-SOS0000037

Thank you for submitting a written proposal response and for participating in the system demonstrations. At this time, the solicitation status remains “under evaluation” of the technical responses and the State has determined a need for additional information. This opportunity to submit clarification, may reduce ambiguity; however, Suppliers should be advised that their technical scores may improve or decrease, as a result.

GENERAL INSTRUCTIONS

The Supplier should complete the attached documents:

- **Supplier Proposal Clarification Response Form**, provide a Clarification narrative for the questions listed along with a Demonstration video narrative to show how the solution meets the proposal description for the questions.
- **Demonstration Video**, submit one video that is no longer than 90 minutes in total, that highlights the capabilities of the Proposed SVS. Please use the Demonstration outline.
- **Cost Proposal Clarification**, to remove the potential for error in miscalculation and for a narrative of cost assumptions that does not include pricing.
- **Contract Exceptions Clarification Form**, indicate only the contract terms that are absolutely necessary to be able to accept the SVS project if determined to be the top bidder.

It is highly recommended that the Supplier carefully and completely read the RFP and its supporting documents, in its entirety, prior to completing this form.

This clarification is intended to allow the Supplier to provide a detailed narrative, where applicable, that describes its approach to meeting the groups of requirements, indicated below. Because of the length and complexity of this RFP the Department requires that a complete response for each Response Statement be incorporated in the space provided below, unless otherwise instructed. The Supplier should not refer the evaluator to content in other sections as a means to satisfy RFP requirements, even if that means repeating the same content. Mere reiterations of RFP activities, tasks, and requirements are strongly discouraged, as they will **not** provide insight into the Supplier's ability to completely meet the requirements included in the RFP. The Supplier's responses should be concise and provide a proposed approach that meet the requirements outlined. Please list information that is proprietary.



TECHNICAL PROPOSAL CLARIFICATION INSTRUCTIONS

1. By no later than 3:00 p.m. on June 3, 2019, provide the clarification to the technical proposal which may include the information shared during demonstrations.
2. Insert the original technical response to each question without changes then immediately follow the original response with any clarifying information. The clarification response should be concise and specific.

Ex. "The technical response intends to clarify the intent to deliver services within the time commitment prescribed by SOS."

PLEASE DO NOT INCLUDE COSTS WITHIN THE TECHNICAL RESPONSE

COST PROPOSAL CLARIFICATION INSTRUCTIONS:

3. Complete the new cost sheet, inserting the original cost response, without adding additional columns or cells.
4. Provide a written narrative that describes the approach, assumptions and/or methodology utilized for developing the cost proposal. Please use cross references to the technical proposal or demonstrations (if applicable). Apply any discounts proposed within the cost model, within a narrative. Please label the document "Approach to Cost Proposal - Narrative".

Ex. "This expense is identified for a full-time project manager, as described in section"

Be reminded that failure to return the materials in the specified timeframe will result in consideration of the Suppliers last submission without modification as being final. This may also result in removal from further consideration.

Thank you again for your interest in providing solutions to the State of Georgia.

Ms. Verneicher Favors

Georgia Secretary of State



Signature of Authorized Representative
Thomas F. O'Brien, Chief Financial Officer

Name and Title

May 31, 2019
Date

SUPPLIER PROPOSAL CLARIFICATION RESPONSE FORM

Supplier Name: Election Systems & Software, LLC

Point of Contact/Email: Jeb Cameron / jeb.cameron@essvote.com


Date: June 3, 2019

Question Type	#	Questions	Clarification Questions:	Clarification Response:	Demonstration Video Narrative: Please submit one video, that is no longer than 90 minutes in total, that clarifies technical capabilities, in the order of the below questions.
MS	1.1	Describe the history of your business and organizational structure. Describe the organization and ownership structure to include parent companies, divisions, subsidiaries, headquarters, and regional offices. List key personnel including personnel that would supervise implementation of the proposed SVS and provide a CV or resume for each person uploaded as "Organizational Structure."	Please describe the funding relationship with any subcontracted arrangement. Who is the prime and what Supplier will be held accountable for contractual responsibilities. What level of dependency does the solution have on a secondary supplier? How will the risk of dependency on other Suppliers, for key components of the proposed solution, be managed?	<u>Original Response:</u> ES&S is the largest elections-only company in the United States with 40 years of experience supporting the elections of 4,500 customers worldwide. We have supported more than 100,000 elections in the last decade alone. ES&S is a privately-owned Delaware limited liability company. The company was initially incorporated in 1979 as American Information Systems and subsequently incorporated as ES&S in 1997 upon its acquisition of the elections division of Business Records Corporation. On September 2, 2009, ES&S acquired the assets of Premier Election Solutions and Premier-Canada. Effective October 1, 2011, Premier was merged with and into ES&S, and ES&S changed its form of legal entity from a C-corporation to a Delaware limited liability company. Election Systems and Software, LLC ("ES&S") is a wholly owned subsidiary of Government Systems, Software & Services, Inc. ("GS3"). GS3 is a privately-owned Delaware corporation headquartered in Omaha, NE. The company maintains eight (8) facilities across North America. The project management team is backed by our staff of more than 500 full-time elections professionals. ES&S is taking a team approach to ensure the State of Georgia is successful in implementing its statewide voting system. From a leadership perspective, we will have the Vice President and Regional Manager of Account Management as well as the Regional Sales Manager overseeing the project team during all implementation activities. ES&S will assign a lead Project Manager, three (3) Account Managers and Regional Coordinators throughout the State as outlined in the below Organizational Chart. The proposed project team for Georgia will consist of the following key personnel: Jeb Cameron, Contractor Relationship Manager Mac Beeson, VP Central Region Sales Linda Bennett, VP, Account Management East Guy Riner, Regional Account Manager Holly Richardson, Project Manager, Account Management Kim Carlisle, Lead Account Manager Staci Jackson, Account Manager Lee Headspeth, Account Manager Angie Butler, Operations Training and Resource Planning Manager Derek Simmons, Regional Manager, Field Service Three (3) ballot builders Please see the below organizational structure and included resumes for the key personnel. <i>* Additional information including organizational charts and project team resumes were included in the original response. Please see the attached PDF document for the full response.</i> <u>Clarifying Information:</u> ES&S does not intend to utilize any subcontractors in its performance of the services under the Statewide Voting System project. As such, ES&S will be responsible for all contractual responsibilities under the final Statewide Voting System Contract as may be mutually agreed upon by the parties.	N/A

MS	2.2	Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.	<p>With consideration of the State's requirement for "hand held" paper ballots, in a closed network environment, please clarify the following:</p> <p>A. Does the capability exist to validate the EMS software/firm using hash validation?</p> <p>B. If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:</p> <ul style="list-style-type: none">- Initial Acceptance Testing,- County Warehouse Pre-Election,- Polling Place Setup, and- Post Election review (saved as archived documentation).	<p>Original Response:</p> <p>ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.</p> <p>Election Management System (EMS) election administrators may use access control and role assignment features within the software to restrict access for programs installed. Counties must physically secure any computer system that contains ballot definition files, data acquisition software, or reporting software from access by unauthorized persons.</p> <p>All ES&S memory devices used are encrypted to prevent unauthorized modifications or copying of data. Our ballot layout and election configuration data are secured to prevent unauthorized modification or copying of the data and to resist hacking and unauthorized access and use.</p> <p>As an original manufacturer, ES&S will release security patches as we deem necessary and provide a prompt, written notification to State officials in the event of a necessary release.</p> <p><u>Clarifying Information:</u> CONFIDENTIAL</p> <p>[REDACTED]</p>	<p>Please describe the features demonstrated in the step by step video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. Show acceptance testing, logic and accuracy, post election/audit phase. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>
MS	2.3	Describe the proposed EMS' post -election audit capabilities?	<p>How does the EMS support post election audits of the physical ballots cast? What reports or data export capability is there that would allow for tabulation audit comparison of tabulated results and a physical review and count of the paper ballots at the: A. Precinct Level, B. Ballot Box Level, and C. Any other level smaller than a precinct.</p>	<p>Original Response:</p> <p>The ES&S system will allow counties to effectively and efficiently audit election results while maintaining the secrecy of the ballot. The ES&S system meets stringent requirements for system audits to provide the supporting documentation for verifying the accuracy of reported election results. The DS450/DS850 central tabulator can be used to rapidly perform recounts. Our system includes detailed audit logs, digital images of the ballots or vote summary cards with electronically linked Cast Vote Records (CVRs), paper records, and central tabulator batch/bin reports.</p> <p>DS450/DS850 AND RECOUNTS</p> <p>The DS450/DS850 central tabulator can be used to rapidly perform a recount of paper ballots and vote summary cards. If a subset of ballots needs to be counted, the Electionware election management system can quickly identify the Election Districts and ballot styles associated with the recounted contest. Electionware software provides a powerful means for restricting the election definition to a subset of contests or Election Districts specified for a particular recount. This definition can be loaded on the DS450/DS850, allowing for sorting and/or recounting of the ballots in question as permitted under a jurisdiction's election law.</p> <p>AUDIT LOGS</p> <p>The ES&S voting solution contains audit logs with sufficient information to allow the auditing of all operations related to election and ballot setup, ballot tabulation, results consolidation and report generation. The system audit logs are created and maintained by the system in the sequence in which operations were performed. All audit logs contain an identification of the program and version being run, identification of the election file being used, record of all operator entries, record of all actions performed by the system or subsystems, record of all tabulation and consolidation input and a record of all ballot or system overrides performed. Only an authorized system administrator can locate, read and print the system audit logs. The machine audit logs for all proposed voting machines list every event that occurs from the time you load your election definition via the USB media drive until you remove the media after the election is complete. These events, which are tagged with time and date, include election-related events, errors and user interactions. The machine audit logs retain entries from all internal components capable of producing an audit log entry, such as the</p>	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>

				<p>power management board, the hardware board and the election processing firmware. The audit logs from every unit used in the election can also be centrally viewed or printed in Electionware. The Electionware election management system itself creates an audit log that includes all logins and actions performed by each user while logged into the application, including all results database creations, file exports and imports, report printing and results updating processes. This audit log is maintained intact from the initial start of the election cycle to the reporting of official results. In addition to the main audit log, two additional audit logs are maintained for the logging and tracking of results entered via the provided manual entry feature and when last-minute changes are made to contest and or candidate names within the module.</p> <p>Electionware audit logs are maintained as an archive with every election backup. They include entries that identify the exact change, the date and time of the change, the user ID, and the module impacted.</p> <p>BALLOT IMAGES/CAST VOTE RECORDS</p> <p>The units providing tabulation functionality can also capture digital images of each ballot or vote summary card cast and associated Cast Vote Record (CVR), which also can be used for recounts and adjudication.</p> <p>To ensure security and protect voter anonymity, the ballot images and CVRs are stored with random names assigned to each ballot image file and have their file timestamps obfuscated. Electionware provides online adjudication that retains both the CVR as initially tabulated and the adjudication board's modified CVR. The ballot image, the machine-generated original CVR, and the review board-modified CVR can be reviewed alongside each other.</p> <p>PAPER TRAIL</p> <p>The paper ballot or vote summary card also provides an audit trail that is available to counties in the event a recount, including manual recount, if required.</p> <p>CENTRAL TABULATOR BATCH/BIN REPORTS</p> <p>The DS450/DS850 central tabulator provides batch/bin reports with information about the ballots in each output bin at the time a batch is saved. The batch/bin reports contain ballot totals for a sort bin for the last batch saved. If ballots have been outstacked to the not-processed bin, the user can view or print the corresponding bin report on demand, which indicates why each ballot in the bin was outstacked. A user can manually print reports on demand or set batch/bin reports to print automatically when a scanned batch of ballots is saved. These reports can be maintained with the physical ballot batch to speed identification and retrieval for audits and recounts.</p> <p>Clarifying Information:</p> <p>Electionware is capable of producing results reports at the precinct level, ballot box level, and levels smaller than a precinct. For precinct level reports, go to Precinct Summary and choose the precinct you wish to audit. Compare those results against a hand-tally of the paper ballots. For ballot box level reports where a single PPS counted ballots for multiple precincts, use the custom table report and choose the polling place that's being audited. Finally, to produce a sub-precinct report, for example a split or combo, use the custom table report to isolate the split or combo that's being audited.</p> <p>Electionware's Reporting module was designed from the ground up to provide flexibility in producing many types of results reports, all of which can be compared against a hand tally of paper ballots for auditing purposes.</p>	
MS	2.6	Ease of Use for GASOS and Local Election Officials: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.	How will the proposed EMS assist GASOS in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?	<p>Original Response:</p> <p>Please see the included case studies.</p> <p>* Additional documentation including case studies were included in the original response. Please see the attached PDF document for the full response.</p> <p>Clarifying Information:</p> <p>Our Electionware Election Management System (EMS), is easy to use and provides tremendous flexibility and scalability to create elections in multiple languages, design ballots for the most complex ballot style elections, configure the proposed digital tabulation and accessible equipment, and manage election results. Electionware's ability to use data and election templates from past elections, as well as built-in ballot templates, eliminates the need to re-enter data or recreate templates with each new election. These powerful capabilities enable election administrators to create error-free elections in less time.</p> <p>KEY COST AND TIME SAVINGS FEATURES:</p> <p>* Electionware's ability to use data from past elections as well as built-in ballot templates and the ability to save election templates enables election administrators to create error-free elections in less time.</p> <p>* Electionware is intuitive, easy-to-use software that streamlines workflow and removes repetition of tasks.</p> <p>* Electionware allows multiple teams of election officials to simultaneously work on different elections.</p> <p>* Fast data import; re-use of election and ballot layout templates; simple translation and audio file management; multiple simultaneous users; ballot image filtering, viewing and printing</p> <p>* Single user interface. The multi-function modules are delivered through a single user interface to better manage and</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

				<p>streamline access to information. Common database and customer-specific settings provide seamless movement among modules, simplifying execution of key tasks.</p> <p>* Flexible ballot design. Electionware's Paper Ballot module provides significant flexibility in ballot design, allowing many of our users to use smaller ballots and, in several instances, move from a multi-sheet ballot to a single sheet.</p> <p>ES&S has proven experience helping the GASOS and local election officials meet their database deadlines. We know the importance of both accuracy and efficiency, and have successfully delivered on both when it comes to statewide ballot building.</p> <p>We designed Electionware specifically to save time in preparing statewide databases through its feature called Election Templates.</p> <p>Election Templates contain election-specific information such as contests, candidates, and ballot questions. It also contains downstream content like ballot designs and voting machine options such as screen messaging and reporting options. All data included in the template is carried forward to eliminate repetitive actions for all 159 databases.</p> <p>In Georgia, ballot builders would first collaborate on building a statewide template. This template would include all statewide contests, candidates, questions, and any other statewide data - including audio - that is re-usable for each county database. The template would also include a Georgia ballot design, as well as standard tabulator options such as the number of Zero and Results tapes automatically printed on Election Day. Electionware's import capabilities further assist in streamlining the process by adding local contests, candidates, and ballot questions without the need to manually enter county-level data across 159 databases.</p>	
MS	2.7	Describe how the proposed EMS will support the building of ADA accessible ballots.	What specific functionality of the voting system shall "be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters consistent with federal laws and regulations.	<p>Original Response:</p> <p>Electionware's Paper Ballot feature allows the user designing a ballot to preview a paper ballot onscreen throughout the creation process, including the final product.</p> <p>Electionware also makes programming the ExpressVote very simple because the ExpressVote Accessible Ballot is automatically created as the Paper Ballot is being designed. This provides consistency and reduces the time it takes to create the ballot layout for more than one equipment type. A single source for ballot design also ensures that the same data is used once. This saves time on both layout and proofing.</p> <p>Electionware includes an ExpressVote Previewer that provides an emulation of the ballot as it will appear on the ExpressVote Universal Voting System.</p> <p>Clarifying Information:</p> <p>The EMS creates speech-to-text audio files that allow blind and visually impaired voters the same opportunity for access and participation as other voters consistent with federal laws and regulations.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.
MS	3.2	Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.	<p>A. Does the capability exist to validate the software/firmware on the PPS using hash validation?</p> <p>B. If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:</p> <ul style="list-style-type: none">- Initial Acceptance Testing,- County Warehouse Pre-Election,- Polling Place Setup, and- Post Election review (saved as archived documentation).	<p>Original Response:</p> <p>ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.</p> <p>ES&S tabulator firmware is inaccessible once installed. ES&S ballot tabulators are single-purpose devices that prevent overwriting or changing the election definition or system firmware once an election official installs the election program. Firmware and operating systems for ES&S tabulators reside in locations physically separate from each tabulator's election program. No source code, compiler or assemblers are resident in ES&S device firmware. To prevent alteration of executable code, the jurisdiction must provide a secure physical and procedural environment for the storage, handling, preparation, and transportation of the system hardware.</p> <p>From a physical security standpoint, the DS200 has keyed locks and seals to protect all ballot box compartments, the tabulator platform, ballot slot, USB media device, and all other critical system components. The ES&S DS200 election definition is stored on a USB media device inside a tamper-proof, sealed, key-locked compartment. A wire seal can be placed on the media device itself to further provide physical security. The access door remains locked throughout Election Day, and the media device can remain sealed in the DS200 until the polls are closed and the media devices are removed and transported to Election Central for results accumulation.</p> <p>Electionware and the DS200 share a robust Digital Signature and access code security feature. This feature provides a high level of security for data transferred between the election management software and the DS200. This system utilizes a public and private key management and security process which includes access code protection to prevent unauthorized access to critical system functions.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

				<p>The actions of activating the terminal and changing the system-operating mode are physically restricted with a physical key. Administrative menus cannot be accessed without a system access code.</p> <p>Clarifying Information: CONFIDENTIAL</p> <p>[REDACTED]</p>	
MS	3.3	Describe your PPS' tabulation process.	What is the model and size of the PPS proposed? Attach a picture.	<p>Original Response:</p> <p>The DS200 scanner and tabulator scans voted ballots and/or ExpressVote vote summary cards. Ballots will scan successfully when inserted in any of four orientations. It can scan a variety of ballot sizes, including ExpressVote vote summary cards. Both sides of the ballot are processed simultaneously with high-resolution scanners and the resulting ballot images are decoded using our patented PTRAC™ and IMR™ technology to determine what constitutes as a mark for a candidate. Tabulated voter selections are stored to a USB flash drive. The flash drive is removable from the system for transport to a central election location where vote totals are consolidated for reporting. The device also has an optional backup flash drive.</p> <p>The DS200 has a large, easy-to-use, touch-screen interface for voter and poll worker communication. It also includes an integrated thermal printer for Election Day printing of zero reports at the opening of the polls, machine totals and log reports and polling place totals upon the official closing of the polls. The unit also has a USB flash drive for loading the election definition and storing results, and an internal battery pack for reliable power in the event of a power outage.</p> <p>Clarifying Information: PPS Model: DS200 polling place scanner and tabulator PPS Size: 41"H x 23"W x 26"D with lid closed for transport</p> 	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>
MS	3.4	Describe what functions the PPS provides to assist with post election audits?	How does the PPS support post election audits of the physical ballots cast? What reports or data export capability is there that would allow for tabulation audit comparison of tabulated results and a physical review and count of the paper ballots at the: A. Precinct Level, B. Ballot Box Level, and C. Any other level smaller than a precinct.	<p>Original Response:</p> <p>The DS200 has the ability to save an image from both the front and back of the ballot. These images can be displayed in Electionware side by side with the cast vote record for the ballot image. This allows for fast and convenient post-election audits.</p> <p>Clarifying Information:</p> <p>The DS200 tabulates paper ballots that may be audited post election. Many jurisdictions who use the DS200 will randomly select a number of precincts and hand count the ballots from those precincts. The hand-count totals are then compared to the original results tape produced by the DS200.</p> <p>With regard to audits of ballots at the (A) Precinct Level and (B) Ballot Box level, please know the DS200 captures and reports each precinct's results separately -- even if multiple precincts are included on the same machine. This means a hand count of just one precinct's ballots or a hand count of all ballots in the ballot box can be audited against the Precinct and Poll reports generated by the DS200. For scenario C (any other level smaller than a precinct), a hand count of a split precinct can also be verified. In this situation, the DS200's Precinct Report is replaced by Electionware's Custom Table Report.</p>	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>

MS	3.5	Ease of Use for Local Election Officials and Voters: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.	What is the size and total weight of the PPS when the scanner is connected and locked with the ballot receptacle? For the following ballot layouts, how many can the receptacle hold? 14" BMD/Mail Out ABS Ballot, 18" BMD/Mail Out ABS Ballot, or other sizes. What is the weight, when full? What can be expected in a power failure? Can ballots be stored and extracted for tabulation at a later time?	<p>Original Response:</p> <p>Please see the included case studies.</p> <p>*Additional documentation including case studies were included in the original response. Please see the attached PDF document for the full response.</p> <p>Clarifying Information:</p> <p>When connected and locked with the ballot receptible, the DS200 is 41"H x 23"W x 26"D and weighs 88 pounds.</p> <p>The DS200 includes a blue tote bin inside the plastic ballot box enclosure where ballots are deposited throughout the day. The blue tote bin is lockable and sealable and allows the ballots to be transported to election central after poll closing in a secure manner. The removable blue tote bin helps poll workers manage the ballot box, provide an easy way to transport ballots at the end of the night, and eliminate the need to remove or otherwise handle the marked ballots. At the end of night, poll workers close both doors, lock and seal the bin, and use the telescoping handle to move the bin on wheels for a secure, easy and light transport.</p> <p>The blue tote bin holds 3,000 ExpressVote ballots that are 11, 14, 17, and 19-inch in length and will weigh 42-48 pounds when full. It holds 2,000 Mail Out ABS ballots that are 11, 14, 17, and 19-inch in length and will weigh 65-74 pounds when full.</p> <p>The DS200 has a built-in backup battery. In the event of a power failure, the DS200 seamlessly reverts to the battery. Images will continue to be stored on the USB memory device inserted in to the DS200. Those images can be collected upon restoration of power. The battery supplies 4-6 hours of use.</p> <p>In the case of full power failure, or other unlikely emergency, the voting process remains uninterrupted. Voters can deposit their ballots in DS200's built-in auxiliary bin. The ballots in this bin are securely maintained separately from the tabulated ballots for easy extraction and tabulation at a later time.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.
MS	3.8	Describe how the proposed PPS will support ADA accessibility for scanning ballots.	What specific functionality of the voting system shall "be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters consistent with federal laws and regulations.	<p>Original Response:</p> <p>ExpressVote meets and exceeds the most rigorous 1.0 Voluntary Voting Systems Guidelines and HAVA section 301 accessibility requirements providing the industry-leading universal voting system for all eligible voters without discrimination of voters with disabilities.</p> <p>Paired with the DS200, which meets all the Common Standards of the Accessibility requirement in VVSG Volume 1 – Section 2.2.7.1, the ExpressVote produces an accessible paper-based record for subsequent tabulation.</p> <p>Clarifying Information:</p> <p>The DS200 accepts ballots in any orientation including face-down for voter privacy. The DS200 utilizes a tactile embossed arrow for non-sighted voters to feel for the correct area to feed in the ballot. The tactile slot and arrow provide physical guidance to a non-sighted voter to vote privately and independently.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.
MS	4.2	Describe your CSD tabulation process.	What is the model and size of the CSD proposed? Attach a picture.	<p>Original Response:</p> <p>The DS200/DS450/DS850 employs two patented imaging technologies, Intelligent Mark Recognition (IMR), and Positive Target Recognition & Alignment Compensation (PTRAC), to ensure that ballot target areas are read accurately and consistently, protecting voter intent and significantly reducing adjudication. The DS200/DS450/DS850 scans and tabulates simultaneously.</p> <p>PTRAC corrects for variations in ballot alignment and printing, allowing the scanner to zero in on the marking area and digitally subtract the outline of the voting target to read only the voter's mark.</p> <p>IMR then analyzes the marked pattern to determine whether the mark is valid. It can detect check marks, Xs and other common voter marks even though the number of pixels contained in the mark would not meet typical thresholds. Our competitors' optical scanners require you to set an arbitrary pixel threshold to determine what counts as a mark.</p> <p>Instead, sophisticated algorithms analyze the mark's darkness (pixel density) and its directionality to determine if it was intentional. Unlike less-sophisticated scanners, the DS200/DS450/DS850 is not fooled by erasures or other stray marks and is not confused by lighter or thinner marks that would be missed by a simple threshold.</p> <p>The DS450/DS850 can scan folded and other damaged ballots with full sorting options enabled. The DS450/DS850 has been uniquely designed to accept ballots that have been folded. The DS450/DS850 uses a patented technology known as TruGrip™, to provide constant contact with each ballot. By using axled, double-rollers throughout the transport and triple rollers in the imaging area, full control of the ballot is ensured from start to finish.</p> <p>The DS450/DS850's TruGrip™ transport and motorized input and main output bins provide exceptional high-speed scanning of folded and damaged ballots. The DS450/DS850 has successfully counted millions of folded absentee ballots for customers in numerous elections with excellent handling of the ballots, even when the ballots were damaged.</p> <p>Clarifying Information:</p> <p>CSD Model: DS200 central scanner and tabulator</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

			<p>CSD Size: 23"W x 41"H x 26"D and weighs 88 pounds</p> <p>CSD Model: DS450 central scanner and tabulator CSD Size: 45"W x 21"H x 20"D and weighs 135 pounds</p> <p>CSD Model: DS850 central scanner and tabulator CSD Size: 41"W x 37"H x 18"D and weighs 200 pounds</p> <div><p>DS200 DS450 DS850</p></div>	
MS	4.3	Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.	<p>A. Does the capability exist to validate the software/firmware on the CSD using hash validation?</p> <p>B. If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:</p> <ul style="list-style-type: none">- Initial Acceptance Testing,- County Warehouse Pre-Election,- Polling Place Setup, and- Post Election review (saved as archived documentation). <p>Original Response:</p> <p>ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.</p> <p>Logic and Accuracy tests are performed using a pre-marked test deck that is properly representative of the election. The Electionware EMS provides an easy means of generating a test deck marked with the jurisdiction's required ballots and voting patterns.</p> <p>Our Automated Test Deck Creation module found within Electionware Toolbox software provides a spreadsheet chart of predetermined results as well as a set of PDF files with pre-marked ovals. The information needed to create the test deck comes directly from the Electionware election definition.</p> <p>The DS450/DS850 can be setup in minutes to run these ballots, generate results, and be cleared and ready for the election. Zero and Results Reports from the test can printed at the machine and results can be transferred to Electionware using a secure USB transfer. Test data is easily cleared after the pre-election test to allow printing of zero reports, scanning of election ballots, and printing and transfer of election results.</p> <p>DS200 ES&S tabulator firmware is inaccessible once installed. ES&S ballot tabulators are single-purpose devices that prevent overwriting or changing the election definition or system firmware once an election official installs the election program. Firmware and operating systems for ES&S tabulators reside in locations physically separate from each tabulator's election program. No source code, compiler or assemblers are resident in ES&S device firmware. To prevent alteration of executable code, the jurisdiction must provide a secure physical and procedural environment for the storage, handling, preparation, and transportation of the system hardware.</p> <p>From a physical security standpoint, the DS200 has keyed locks and seals to protect all ballot box compartments, the tabulator platform, ballot slot, USB media device, and all other critical system components. The ES&S DS200 election definition is stored on a USB media device inside a tamper-proof, sealed, key-locked compartment. A wire seal can be placed on the media device itself to further provide physical security. The access door remains locked throughout Election Day, and the media device can remain sealed in the DS200 until the polls are closed and the media devices are removed and transported to Election Central for results accumulation. Electionware and the DS200 share a robust Digital Signature and access code security feature. This feature provides a high level of security for data transferred between the election management software and the DS200. This system utilizes a public and private key management and security process which includes access code protection to prevent unauthorized access to critical system functions. The actions of activating the terminal and changing the system-operating mode are physically restricted with a physical key. Administrative menus cannot be accessed without a system access code.</p> <p>DS450/DS850 DS450/DS850 security features ensure the highest level of physical and system-level security for the central count environment: Data and system validation. The DS450/DS850 provides easy validation for all resident firmware against certified versions and generates detailed audit and event logs to support system vetting. In addition, it validates and accepts only data that contains the proper digital data encryption and signing.</p> <p>Strong physical access controls. The DS450/DS850 secures all data ports behind clear plastic lockable and sealable access doors to protect access and allow election officials to easily detect unauthorized access. All critical hardware components can be locked and sealed, as well. The DS450/DS850 logs when the imaging heads are accessed. It provides additional alerts and logs access to the service door on the back of the unit.</p> <p>Role based access codes. The DS450/DS850 provides access codes that allow access for operator and administrative</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

password-based access codes. The D34300/D34300 provides access codes that allow access for operator and administrative roles. Access code protection is configurable to protect all operations of the applications. Pass codes are required to access all critical functions, including Election Administration, Processing Modes, System and Hardware Maintenance, and Results functions. Supervisor functions are limited to the controls provided in the system menus.

Protection against improper configuration. The system functions will not execute if it is improperly configured.

Clarifying Information:

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MS	4.4	Describe how the CSD assists with post-election audits.	<p>How does the CSD support post election audits of the physical ballots cast? What reports or data export capability is there that would allow for tabulation audit comparison of tabulated results and a physical review and count of the paper ballots at the: A. Precinct Level, B. Ballot Box Level, and C. Any other level smaller than a precinct.</p>	<p>Original Response:</p> <p>The ES&S system will allow the State to effectively and efficiently audit election results while maintaining the secrecy of the ballot.</p> <p>The ES&S system meets stringent requirements for system audits to provide the supporting documentation for verifying the accuracy of reported election results. The DS450/DS850 central tabulator can be used to rapidly perform recounts. Our system includes detailed audit logs, digital images of the ballots or vote summary cards with electronically linked Cast Vote Records (CVRs), paper records, and central tabulator batch/bin reports.</p> <p>DS200</p> <p>The DS200 has the ability to save an image from both the front and back of the ballot. These images can be displayed in Electionware side by side with the cast vote record for the ballot image. This allows for fast and convenient post-election audits.</p> <p>DS450/DS850 AND RECOUNTS</p> <p>The DS450/DS850 central tabulator can be used to rapidly perform a recount of paper ballots and vote summary cards.</p> <p>If a subset of ballots needs to be counted, the Electionware election management system can quickly identify the Election Districts and ballot styles associated with the recounted contest. Electionware software provides a powerful means for restricting the election definition to a subset of contests or Election Districts specified for a particular recount. This definition can be loaded on the DS450/DS850, allowing for sorting and/or recounting of the ballots in question as permitted under a jurisdiction's election law.</p> <p>AUDIT LOGS</p> <p>The ES&S voting solution contains audit logs with sufficient information to allow the auditing of all operations related to election and ballot setup, ballot tabulation, results consolidation and report generation. The system audit logs are created and maintained by the system in the sequence in which operations were performed.</p> <p>All audit logs contain an identification of the program and version being run, identification of the election file being used, record of all operator entries, record of all actions performed by the system or subsystems, record of all tabulation and consolidation input and a record of all ballot or system overrides performed. Only an authorized system administrator can locate, read and print the system audit logs.</p> <p>The machine audit logs for all proposed voting machines list every event that occurs from the time you load your election definition via the USB media drive until you remove the media after the election is complete. These events, which are tagged with time and date, include election-related events, errors and user interactions. The machine audit logs retain entries from all internal components capable of producing an audit log entry, such as the power management board, the hardware board and the election processing firmware. The audit logs from every unit used in the election can also be centrally viewed or printed in Electionware.</p> <p>The Electionware election management system itself creates an audit log that includes all logins and actions performed by each user while logged into the application, including all results database creations, file exports and imports, report printing and results updating processes. This audit log is maintained intact from the initial start of the election cycle to the reporting of official results. In addition to the main audit log, two additional audit logs are maintained for the logging and tracking of results entered via the provided manual entry feature and when last-minute changes are made to contest and or candidate names within the module.</p> <p>Electionware audit logs are maintained as an archive with every election backup. They include entries that identify the exact change, the date and time of the change, the user ID, and the module impacted.</p> <p>BALLOT IMAGES/CAST VOTE RECORDS</p> <p>The units providing tabulation functionality can also capture digital images of each ballot or vote summary card cast and associated Cast Vote Record (CVR), which also can be used for recounts and adjudication.</p> <p>To ensure security and protect voter anonymity, the ballot images and CVRs are stored with random names assigned to each ballot image file and have their file timestamps obfuscated. Electionware provides online adjudication that retains both the CVR as initially tabulated and the adjudication board's modified CVR. The ballot image, the machine-generated original CVR, and the review board-modified CVR can be reviewed alongside each other.</p> <p>PAPER TRAIL</p> <p>The paper ballot or vote summary card also provides an audit trail that is available to counties in the event a recount, including manual recount, if required.</p> <p>CENTRAL TABULATOR BATCH/BIN REPORTS</p> <p>The DS450/DS850 central tabulator provides batch/bin reports with information about the ballots in each output bin at the time a batch is saved. The batch/bin reports contain ballot totals for a sort bin for the last batch saved. If ballots have been outstacked to the not-processed bin, the user can view or print the corresponding bin report on demand, which indicates why each ballot in the bin was outstacked. A user can manually print reports on demand or set batch/bin reports to print automatically when a scanned batch of ballots is saved. These reports can be maintained with the physical ballot batch to speed identification and retrieval for audits and recounts.</p> <p>Clarifying Information:</p> <p>DS200 (as a PPS or CSD)</p> <p>The DS200 tabulates paper ballots that may be audited post-election. Many jurisdictions who use the DS200 will randomly select a number of precincts and hand count the ballots from those precincts. The hand-count totals are then compared to the original results tape produced by the DS200.</p> <p>With regard to audits of ballots at the (A) Precinct Level and (B) Ballot Box level, please know the DS200 captures and reports each precinct's results separately -- even if multiple precincts are included on the same machine. This means a hand count of just one precinct's ballots or a hand count of all ballots in the ballot box can be audited against the</p>	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>
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				<p>hand count or just the precinct scanner or a hand count or an election in the election can can be scanned against the Precinct and Poll reports generated by the DS200. For scenario C (any other level smaller than a precinct), a hand count of a Split Precinct can also be verified. In this situation, the DS200's Precinct report is replaced by a Electionware's custom table report.</p> <p>DS450/DS850 (CSD)</p> <p>Both of these high speed central scanners can be programmed to spray an unique identifying number on every ballot scanned. The ballots can then be randomly selected to be compared against their vote cast record with the same unique identifying number. ES&S is committed to supporting modern post-election audit procedures, including risk limiting audits (RLA). We have implemented a number of RLA features with even more support coming in future releases.</p> <p>If a paper-based RLA is desired, the DS450/DS850 can print a serial number on each ballot. The serial number is small and printed near the corner of the ballot, but most importantly it is printed after the ballot has been scanned and processed. This allows for a pristine image capture of the ballot as it was marked by the voter. As results data is transferred from the DS450/DS850 to the Electionware software, Electionware maintains a database of all ballot serial numbers, corresponding ballot images, and corresponding cast vote records (CVR).</p> <p>Since the ballot, image, and CVR are now linked, any ballot that is randomly selected for audit can now easily be located and reviewed. For example, if ballot number 123456789 is randomly selected for audit, the user can:</p> <ul style="list-style-type: none">* Locate the ballot because the number is printed on the ballot,* Locate the ballot image in Electionware by simply entering the ballot number, and* View the CVR for the ballot in Electionware. The CVR provides details on the ballot's tabulation. <p>ES&S believes these features are tremendously helpful for any jurisdiction that is seeking to perform a risk limiting audit.</p> <p>In future releases, we will be adding similar serialization functionality to the DS200 and ExpressVote.</p>	
MS	4.5	Ease of Use for Local Election Officials: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.	How will the proposed CSD assist Local Election Officials counties in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?	<p>Original Response:</p> <p>Please see included case studies.</p> <p>* Additional documentation including case studies were included in the original response. Please see the attached PDF document for the full response.</p> <p>Clarifying Information:</p> <p>All election media required for the ExpressVote, DS200 and DS450/DS850 is programmed from one (1) election database in the Electionware Election Management System. The same election database used to create ballots for all local and statewide races is used to configure the equipment, reducing data entry and ensuring consistency throughout. Once the equipment configurations have been set up, the election definition is burned for use on all machines, including the central scanners.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.
MS	5.2	Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.	<p>A. Does the capability exist to validate the software/firmware on the BMD using hash validation?</p> <p>B. If yes, what are the steps needed to obtain a HASH value in the following scenarios?</p> <p>Please specify:</p> <ul style="list-style-type: none">- Initial Acceptance Testing,- County Warehouse Pre-Election,- Polling Place Setup, and- Post Election review (saved as archived documentation).	<p>Original Response:</p> <p>ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code. Additionally, Logic and accuracy (L&A) testing is performed well before the election to verify that the election definition generated for each voting device matches the election being held, and that all contests and candidates are accurately reflected on each ballot style and on reports. L&A testing verifies that all voting positions can be voted, and whether each contest can be voted for the maximum number of eligible candidates. Pre-election L&A testing involves setting up the voting system for each voting location in the election, loading the election definition, opening the election, casting a known pattern of votes on each ballot (or card) style, closing the election, printing the vote totals then comparing the printed vote totals with the known pattern of votes. After using the ExpressVote to generate printed vote summary cards that match the voting pattern for testing, election officials will use the DS200 to tabulate those cards and verify that the voting results match the expected results for the test voting pattern.</p> <p>Access controls. The operating software provides security access controls to limit or detect access to critical system components and to guard against loss of system integrity, availability, confidentiality, and accountability. If any files have changed, the system will alert the user and will not continue until the issue is resolved.</p> <p>System function protection. System functions are only executable in the manner and order intended, and only under the intended conditions.</p> <p>Control logic. Control logic prevents ballot marking if any preconditions to this function have not been met.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

				<p>Tamper protection. Hardware is designed to protect against tampering during system repair, or interventions in system operations in response to system failure. The USB compartment is key-locked and has a place for the County to add a tamper-evident seal. All data is protected with a secure hash code. All ports, doors, openings and data access points are protected by lockable, sealable clear plastic doors to protect access and allow election officials to easily detect unauthorized access.</p> <p>System access limited. System access during equipment preparation, testing, and operation is limited by access code.</p> <p>Security safeguard protection. Security safeguards cannot be bypassed or deactivated during system installation or operation by the user.</p> <p>Logs. The ExpressVote has an audit log. The log keeps track of all voter operations, tracks issues, and any unit hardware failures. The logs are accessed and can be printed through Electionware.</p> <p>Officials should retain all paper ballots and election results USB memory devices to ensure system security and provide audit trail for forensic investigation.</p> <p><u>Clarifying Information:</u> CONFIDENTIAL</p> <p>[REDACTED]</p>	
MS	5.4	Ease of Use for Local Election Officials and Voters: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.	How will the proposed BMD assist Local Election Officials counties in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?	<p><u>Original Response:</u> Please see the included case studies. <i>* Additional documentation including case studies were included in the original response. Please see the attached PDF document for the full response.</i></p> <p><u>Clarifying Information:</u> All election media required for the ExpressVote, DS200 and DS450/DS850 is programmed from one (1) election database in the Electionware Election Management System. The same election database used to create ballots for all local and statewide races is used to configure the equipment, reducing data entry and ensuring consistency throughout. Once the equipment configurations have been set up, the election definition is burned for use on all machines, including the ballot marking devices.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

MS	5.6	Describe how the proposed BMD will support ADA accessibility.	<p>What specific functionality of the voting system shall “be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters consistent with federal laws and regulations.</p>	<p>Original Response:</p> <p>The ExpressVote allows voters to cast their votes unassisted, thereby maintaining their privacy and anonymity. Every ExpressVote is fully accessible, allowing any voter to select any ExpressVote without the need to declare a disability or be relegated to certain devices.</p> <p>Most voters, even those with visual impairments or who are blind, can use the corner cut tactile indicator to properly orient the card and insert the cards into the machine. Braille on the face of the ExpressVote indicates where to insert the activation card.</p> <p>Each ExpressVote includes the following functionality:</p> <ul style="list-style-type: none">•Touch screen with colors and accessibility-enhancing effects, including voter-selected font size and contrast settings•Interconnected navigational keypad buttons with both Braille and printed text labels designed to indicate function and a related shape to help the voter determine its use•Port for a sip-and-puff device, foot pedal, or other two-way switch•Audio voting session via text-to-speech or .wav files. Voters can privately listen to instructions and selections at a volume, tone, and speed that will meet their unique needs•High-visibility on-screen ballots with options for Zoom and Contrast <p>The ExpressVote uses electronic technology based on input from election officials and disability organizations. It integrates components such as a digital scanner, printer, touch screen, and a navigational audio-tactile keypad.</p> <p>Key features of the ExpressVote include:</p> <ul style="list-style-type: none">•Multiple ballot navigation and selection methods that can be used simultaneously at any time during the voting process.•Audio presentation created by either real voice files or through the voice file generator in Electionware Toolbox. Voters privately listen to instructions and selections at their chosen volume and speed. The automated languages are easy to understand for audio-ballot users who tend to significantly increase their speed.•Ballot and voter instruction/message presentation in the language selected by the voter both in audio and visual formats. Voting choices and instructions can be displayed in large text on a high contrast background on the touch screen display, as well as played by the audio system in the voter’s preferred language.•Allows voter to select a black privacy screen during an audio presentation.•Tempo and volume controls for adjusting audio ballot presentation.•Pause/resume audio capabilities. <p>Following is a quote from the website “Blind Bargains” after the author tested accessible voting devices from Hart Intercivic, Dominion Voting Systems, and Election Systems & Software included in section 5-4.</p> <p>“With my faith in modern voting technology quickly running out, I moved to the last of the machines, The ExpressVote from Election Systems & Software...I walked up to the machine and inserted my paper ballot into the reader, which immediately caused speech feedback to begin. No intervention was necessary from the election workers.... Overall, I completed my 23-question ballot in about 5 minutes. Of the three systems tested, the ExpressVote is the only one I am comfortable recommending in its current form. Set-up was achieved independently by the voter, prompts were spoken efficiently, and a ballot could be completed using the fewest number of key presses.”</p> <p>Clarifying Information:</p> <p>The ExpressVote allows voters to cast their votes unassisted, thereby maintaining their privacy and anonymity. Every ExpressVote is fully accessible, allowing any voter to select any ExpressVote without the need to declare a disability or be relegated to certain devices.</p> <p>Most voters, even those with visual impairments or who are blind, can use the corner cut tactile indicator to properly orient the card and insert the cards into the machine. 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Voting choices and instructions can be displayed in large text on a high contrast background on the touch screen display, as well as played by the audio system in the voter’s preferred language.•Allows voter to select a black privacy screen during an audio presentation.•Tempo and volume controls for adjusting audio ballot presentation.•Pause/resume audio capabilities <p>Our system is federally certified to the VVSG 1.0 standards, which requires the ExpressVote to be compliant with the American with Disabilities Act (ADA) and summative accessibility and usability testing. Unlike some companies that perform their own testing and can “craft” the test report to show favorable results, ES&S has used 3 different independent labs for this testing and has used elections that are significantly more complex than is required. The 3 test labs are led by some of the most respected experts in the field of usability and accessibility. They are</p>	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>
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				<p>ness are hereby waived by the most responsible engineer at the time of signing and recording. They are:</p> <p>1) Dr. Juan Gilbert, Chair of the Division of Human-Centered Computing at Clemson University – Dr. Juan Gilbert, now at the University of Florida, is a pioneer in usability of ballot marking devices (BMDs) and is the only academic researcher to build a BMD that was used in a live election.</p> <p>2) Dr. Steven Gilbert, Associate Director, Virtual Reality Application Center/Human Computer Interaction at Iowa State University</p> <p>3) Dr. Kathryn Summers, Director, Division of Science in Information and Interaction Design Program at the University of Baltimore. Dr. Summers first evaluated the ExpressVote as part of the evaluation for the State of Maryland. She has since been contracted by ES&S to provide further study of the new UI design being implemented in EVS 6.1.0.0. She also contributed to the LA VSAP UI design and is industry renowned for her strong expertise in low literacy and low cognitive users.</p> <p>Our system is the only system in use today that allows visually impaired or low literacy voters the ability to validate their printed selections. Our future release, EVS 6.1.0.0, will provide 2 modes – one for voters that don't require assistive features and one that has all assistive features they could require. This will greatly increase the speed of vote sessions for both types of users.</p>	
MS	6.2	Describe how election configuration information is loaded. Is it done via encrypted, removable memory devices created by the EPDMS or through direct a connection to EPDMS through a LAN?	Is the EPDMS housed on a CPU that can be hosted on premise and air gapped? If the EPDMS is designed to be hosted, please describe if it is possible to run the EPDMS in a private cloud configuration, separated from other customers?	<p>Original Response:</p> <p>Using Pollware, our fully-integrated poll data management software solution, users are able to accurately and securely convert their voter registration data into electronic poll data files for use on the ExpressPoll units. Workflow options and pollbook configurations can easily be modified from election to election, allowing users to customize the ExpressPoll experience to meet their specific election and jurisdictional requirements. Jurisdictions – either at the State or County level - will be able to use Pollware software to convert voter registration data into electronic pollbook files, customize the workflow based on voter status, determine how ballots are issued from the pollbook, assign and track equipment and data by poll location, and generate post-election reports and voter history exports for the Voter Registration system.</p> <p>Pollware is able to accept imports of election ballot data on removable memory devices to ensure the correct ballot assignment is provided to each voter from the electronic pollbook. All elector data is encrypted to meet AES-256 encryption standards. This standard reflects one of the highest encryption levels available. The elector data is encrypted at this level in transfer and at rest. The files are transferred via a USB drive to the pollbooks and from the pollbook to the Pollware software which generates the voter history exports.</p> <p>Clarifying Information:</p> <p>The EPDMS - Pollware - is designed to be housed on a single CPU and hosted on premise. It requires no network connection of any kind, and can be air gapped without negative ramification.</p> <p>Should there be a need, Pollware can also be hosted just as easily in a private cloud, as it was designed in such a way that customers of different preferences can use it without fundamentally changing their business processes or network architecture.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.
MS	6.4	Ease of Use for the State and Election Official: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.	Please describe in detail how the EPDMS data can be transferred to the Epoll and transferred back from the Epoll. Is it possible to do this without an over-the-air technology like Bluetooth or WIFI?	<p>Original Response:</p> <p>As with our ExpressPoll pollbook solution, our Pollware software was designed with an intuitive interface that allows users to accurately and securely convert voter registration files into poll data files used on the ExpressPoll. Users are able to customize their pollbook workflow based on voter status, absentee status, or election type to meet the specific needs of each jurisdiction. Post-election, Pollware quickly converts pollbook transaction logs into reports and voter history files used by the Voter Registration system. As with the ExpressPoll application, the State of Georgia's Pollware application will be crafted to follow current workflow and state-specific needs.</p> <p>Clarifying Information:</p> <p>Pollware data is transferred directly to the Epoll - Expresspoll - by way of USB flash drive. Pollware writes data to be ingested by Expresspoll to a specific folder on its workstation. That data is then written to the USB flash drive.</p> <p>The USB flash drive is inserted into one of the Expresspoll stand's vacant USB slots. Navigating through a short menu of on-screen prompts, Pollware data is then loaded to the ExpressPoll.</p> <p>This same process works in reverse. Data produced by Expresspoll is transferred back to Pollware by way of USB flash drive eliminating any need for over-the-air technology.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.
MS	7.2	Describe how election configuration information is loaded. Is it done via encrypted, removable memory devices created by the EPDMS or through direct a connection to EPDMS through a LAN?	How are Epolls connected to other Epolls at a polling location to allow for data to sync? How will the proposed EMS assist GOSOS in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?	<p>Original Response:</p> <p>Poll data files, including voter and configuration information, are transferred from Pollware to the ExpressPoll devices via removable USB devices. All elector data is encrypted to meet AES-256 encryption standards. This standard reflects one of the highest encryption levels available. The elector data is encrypted at this level in transfer and at rest. The files are transferred via a USB drive to the pollbooks and from the pollbook to the Pollware software which generates the voter history exports.</p> <p>Clarifying Information:</p> <p>Expresspolls are connected to one another at a polling location via standard 802.11n or 802.11ac wireless access point. Synchronization occurs over this connection, and all data synchronizations are encrypted between Expresspolls with AES-256 encryption.</p>	Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.

MS	7.3	Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.	<p>A. Does the capability exist to validate the Epoll software/firm using hash validation?</p> <p>B. If yes, what are the steps needed to obtain a HASH value in the following scenarios?</p> <p>Please specify:</p> <ul style="list-style-type: none">- Initial Acceptance Testing,- County Warehouse Pre-Election,- Polling Place Setup, and- Post Election review (saved as archived documentation).	<p>Original Response:</p> <p>During Logic and Accuracy testing, users are allowed to assign specific devices to a specific polling location using the pollbook's unique Device Name. This ensures that the correct pollbook and poll data set is deployed to each location, preventing unauthorized or incorrect access of voter data from the electronic pollbooks. Additionally, all data is encrypted at AES 384 in transfer and at rest on the application and requires the correct entry of the Pollbook Qualification Code (PQC) to decrypt and access the poll data files generated from Pollware. If the PQC is incorrect, the system prevents access to the voter data. As is the case today, testing is conducted on each ExpressPoll software process for negative outcomes and for system level integration in order to validate data across the multiple systems. Testing procedures (both Acceptance and Logic and Accuracy), can be customized specifically for the State of Georgia during the implementation process to help ensure data integrity.</p> <p>Clarifying Information:</p> <p>CONFIDENTIAL</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>
MS	7.4	Ease of Use for the Election Official: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.	<p>How long does the equipment last? Will the equipment be available for the life of the contract? –How will the proposed EPOLL assists Election Official in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?</p>	<p>Original Response:</p> <p>The ExpressPoll electronic pollbook was developed to make Election Day setup quick and easy--in fact, setup takes mere seconds. Simply remove the ExpressPoll stand from the carrying case and push the power button. The 10-inch touch-screen tablet, barcode reader, external USB ports and power supply are fully integrated, eliminating the need to assemble or connect any components to open the polls. The ExpressPoll software features an intuitive interface that allows poll workers to quickly and confidently complete voter look up and issue ballots. Developed with Election Day users in mind, the application includes streamlined screens designed to simplify navigation throughout every process. On average, users are able to log in, open polls, search voter records and issue a ballot in less than 60 seconds. Subsequent voter searches, both with manual data entry or by scanning a barcode, can be completed in less than 20 seconds. Poll Place information, such as location details, battery percentage and ballot issued totals, is displayed onscreen, allowing users to quickly verify important information. Post-election, encrypted pollbook transaction logs can be downloaded from the pollbook to a USB device by entering an access code, created by the jurisdiction, and following the onscreen prompts. The thoughtfully designed ExpressPoll electronic pollbook system empowers even novice users to become experts in a short amount of time, improving accuracy of issued ballots and reducing issues on Election Day.</p> <p>Clarifying Information:</p> <p>The ExpressPoll stand is purpose built and based on a point-of-sale design customized for elections use. Similar designs and materials are found in airport self-service check-in kiosks and self-service point-of-sale systems. It uses high quality and durable materials, and once the tablet and stand are assembled and married, the ExpressPoll requires no further assembly for transit to and from the polling place. Set-up on Election Day is as easy as placing the unit on a table, plugging it in, and powering it on.</p> <p>The ExpressPoll tablet is a Microsoft Surface Go tablet with Microsoft Windows 10 Enterprise LTSC. The inclusion of Microsoft Windows 10 Enterprise LTSC ensures that the operating system utilized on the tablet will be supported with security and critical updates through the year 2028 by Microsoft.</p> <p>Due to the underlying operating system being supported by the manufacturer through the year 2028, the ExpressPoll software/firmware running on Microsoft Windows 10 Enterprise LTSC is ensured to work through the life of the contract, even if different tablet hardware has to be sourced for augmentation or replacement purposes.</p> <p>As we've described in previous answers, all election media required for the Expresspoll is programmed from a single program – in this case, Pollware. Because the ES&S SVS solution is end-to-end, Pollware is able to seamlessly accept election ballot data imports from Electionware to ensure the correct ballot assignment is provided to each voter from ExpressPoll for local and statewide elections alike.</p> <p>Pollware data built at the State level can easily be distributed to counties via secure file transfer or by means of a single USB flash drive shipped to each county. Any need for the GASOS to produce pre-election media for every Expresspoll in the state is eliminated since required files are downloaded to the Expresspoll unit. Creating removable, external media for each unit is no longer necessary, thereby saving valuable time for GASOS staff before each election.</p>	<p>Please describe the features that the evaluation team will see demonstrated in the video submission to show how the solution meets the proposal description for this question. Please document the technical and user experience capabilities in writing. As applicable, please reference the demonstration instructions, provided for in-person demonstrations.</p>

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				<div>[REDACTED]</div>	
MS	9.3	Provide extensive, in-depth training plan and documentation for GASOS staff on the setup and use of the proposed EPDMS and EPolls.	<p>Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.</p> <p>Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.</p> <p>Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).</p>	<div>[REDACTED]</div> <p>TRAINING DOCUMENTATION ES&S has provided the complete documentation for the GASOS equipment training courses as Attachment A.</p>	
				<div>[REDACTED]</div> <p>Original Response: ES&S agrees and will comply. Documentation for the below training plan is provided as an attachment in response to Section 18.6: CONFIDENTIAL</p> <div>[REDACTED]</div>	

[REDACTED]

Clarifying Information:
CONFIDENTIAL

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

TRAINING DOCUMENTATION
ES&S has provided the complete documentation for the GASOS EPoll and EPDMS training courses as Attachment A.

MS	10.1	Provide an extensive, in-depth training plan for county election officials on the setup and use of the proposed PPS, CSD, and BMD. Include a diagram of Advance-In Person voting and Election Day setup of all proposed SVS components.	<p>Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.</p> <p>Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.</p> <p>Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).</p>	<p><u>Original Response:</u> Please refer to Section 9.2 for full PPS, CSD, and BMD equipment course descriptions, as they will be the same training plans for both GASOS and the counties. The county-level EMS system training will follow the below curriculum:</p> <p>CONFIDENTIAL</p> <p><u>Clarifying Information:</u> CONFIDENTIAL</p>	N/A
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A stylized illustration of a book with a dark cover and white pages, set against a background of horizontal lines. The book is positioned in the center, with its pages fanned out, creating a sense of depth and texture. The background consists of numerous thin, horizontal lines that vary in length and spacing, giving it a layered, almost architectural appearance. The overall color palette is muted, featuring shades of grey, black, and white, which contributes to a minimalist and modern aesthetic.

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MS	10.2	Provide a training plan and documentation to each county elections office on, at minimum, the following: 1. Loading prepared election database to EMS. 2. Setting amount of Absentee by Mail scanning, Absentee In-Person voting, Election-Day use, and Provisional scanning equipment in EMS to be used for a given election. 3. Viewing and printing pre-election proofing reports from EMS. 4. Preparing necessary election media from EMS for use in the proposed PPS, CSD, and BMD. 5. Preparing and testing equipment for Absentee by Mail scanning, Absentee in-person voting, Election Day use, and Provisional scanning. 6. Configuring and sealing equipment for Absentee by Mail scanning, Absentee in-person voting, Election Day use, and Provisional scanning. 7. Absentee In-Person voting equipment opening and closing procedures (PPS, BMD, EPoll). 8. Election Day equipment opening and closing procedures (PPS, BMD, EPoll). 9. Polling scanning procedures. 10. Central scanning procedures. 11. Transitioning equipment from Absentee In-person voting use to Election Day use. 12. Basic equipment troubleshooting, while in use. 13. Removing and securing collected ballots and removable media. 14. Recovering archived data from internal memory (PPS, EPoll, and CSD). 15. Uploading removable media to EMS. 16. Producing tabulation reports from EMS. 17. Generating export files from EMS for Election Night Reporting (ENR). 18. Preparing post-election documentation from EMS. 19. Preparing finalized copy of election results from EMS for delivery to GASOS for certification. 20. Conducting recounts. 21. Conducting post-election audits. 22. Proper storage and maintenance of all SVS components.	Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties. Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019. Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).	<u>Original Response:</u> Our ES&S Instructional Design team has developed a comprehensive series of training documentation including Administrator, Poll Worker, and Troubleshooting Guides. Our goal with these training materials is to provide your election staff with easy-to-follow operating procedures to refer to after the classroom training has concluded. This approach to our customized manuals allows your election staff to be fully prepared and ensures autonomy in election operations while using our equipment. Additionally, ES&S will address the development of training for post-election audits based on the State's auditing requirements. All of the above topics are covered within the written documentation attached. These manuals will also be provided during each training session. <u>Clarifying Information:</u>	N/A
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MS	12.4	<p>Provide a roll-out plan for deploying all components of the proposed SVS to the GASOS for up to 10 local jurisdictions for use in November 2019 elections by August 1, 2019. Reference Attachment O Potential Equipment Distribution.</p>	<p>Please describe the dependencies and assurances to meet the commitments proposed for: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.</p>	<p>Original Response: Please see the included Project Plan. <i>*Additional documentation including project plan were included in the original response. Please see the attached PDF document for the full response.</i></p> <p>Clarifying Information: ES&S is fully committed to meeting the PHASE 1: AUGUST 1, 2019 deadline set forth by the GASOS in the RFP.</p> <p>Dedicated resources both onsite in the State of Georgia and remotely are committed to the completion of the Phase 1 Pilot equipment delivery, acceptance, and training to ensure a successful first use in the November 2019 election.</p> <p>Equipment Delivery, Pre-Installation/Setup, Acceptance, and Distribution:</p> <table><tr><th colspan="3">Implementation Phase 1</th></tr><tr><td>Tabulation Hardware</td><td>Fri 7/26/19</td><td>Fri 9/6/19</td></tr><tr><td>Hardware Delivery to Georgia Distribution Facility</td><td>Thu 8/1/19</td><td>Thu 8/1/19</td></tr><tr><td>Pre-Installation/Setup & Acceptance Testing</td><td>Thu 8/1/19</td><td>Fri 9/6/19</td></tr><tr><td>Conduct Pre-Installation/Setup on Voting System</td><td>Thu 8/1/19</td><td>Fri 8/9/19</td></tr><tr><td>Conduct Acceptance on Voting System</td><td>Fri 8/2/19</td><td>Fri 8/16/19</td></tr><tr><td>Sign-off on Delivery & Acceptance Testing</td><td>Fri 8/16/19</td><td>Fri 8/16/19</td></tr><tr><td>Tabulation Hardware</td><td>Mon 8/19/19</td><td>Wed 8/28/19</td></tr><tr><td>Stage & Prepare Hardware for Shipment to County Locations</td><td>Mon 8/19/19</td><td>Fri 8/23/19</td></tr><tr><td>On-site Delivery of Hardware @ County Locations</td><td>Wed 8/21/19</td><td>Wed 8/28/19</td></tr></table> <p>EMS Delivery and Acceptance: All EMS deliveries to the GASOS distribution facility will be completed by August 1st, 2019.</p> <table><tr><td>EMS Workstation</td><td>Mon 7/8/19</td><td>Fri 9/20/19</td></tr><tr><td>Order EMS Hardware/Software</td><td>Mon 7/8/19</td><td>Mon 7/8/19</td></tr><tr><td>Stage & Prepare EMS Workstation</td><td>Mon 7/15/19</td><td>Thu 7/18/19</td></tr><tr><td>Ship Hardware to GASOS & Georgia Distribution Site</td><td>Tue 7/30/19</td><td>Thu 8/1/19</td></tr><tr><td>On-site Delivery of EMS Workstation @ GASOS</td><td>Thu 8/1/19</td><td>Thu 8/1/19</td></tr><tr><td>Sign-off on Delivery & Acceptance Testing for GASOS & County EMS</td><td>Mon 9/9/19</td><td>Thu 9/19/19</td></tr><tr><td>Ship Hardware to County Sites</td><td>Tue 9/10/19</td><td>Thu 9/19/19</td></tr><tr><td>On-Site Delivery of EMS Workstation @ County Locations</td><td>Tue 9/17/19</td><td>Fri 9/20/19</td></tr></table> <p>Dependencies</p> <ul style="list-style-type: none">• Contingent upon signing of contract for Statewide Voting System by July 1st, 2019.• Availability of State of Georgia personnel for Acceptance of the Phase 1 pilot equipment to be completed by August 16th, 2019.• Availability of all participating pilot counties to accept delivery of equipment by August 28th, 2019.• Dependent upon the continuity of requirements outlined in RFP. Any changes to the requirements would necessitate approval through the Project Change Control Process, with agreement of all changes and potential impact on project timelines by all involved parties. <p>Assurances</p> <ul style="list-style-type: none">• Delivery dates for EMS systems are now scheduled to be delivered at an earlier date than in our original response.• Additional time has been provided for State acceptance testing. Such testing is now scheduled to be done in parallel with ES&S pre-installation activities in preparation for the Phase 1 pilot. ES&S will adjust the proposed pre-installation and acceptance testing schedule to accommodate the schedule of the GASOS.• ES&S has committed full-time employed Field Services resources to the distribution facility for the duration of the acceptance and distribution to meet the condensed timeline required for the November election.• ES&S will have a dedicated distribution facility manager to coordinate the receiving of equipment. The facility manager will also be responsible for shipping to the individual counties once the acceptance testing is complete.• ES&S Technical Services team will prepare and test all EMS workstations prior to shipping to the in-state distribution facility to accelerate the pre-installation/setup process.• ES&S has dedicated resources to conduct any additional training for State Personnel in order to conduct acceptance testing for both tabulation and EMS systems. <p>Training:</p> <table><tr><td>Training- Hardware & Software</td><td>Tue 9/3/19</td><td>Thu 10/3/19</td></tr><tr><td>Fulton County- Hardware & Software Training</td><td>Wed 9/4/19</td><td>Fri 9/6/19</td></tr><tr><td>Treutlen County- Hardware & Software Training</td><td>Wed 9/4/19</td><td>Thu 9/5/19</td></tr><tr><td>Decatur County- Hardware & Software Training</td><td>Tue 9/3/19</td><td>Wed 9/4/19</td></tr><tr><td>Lowdnes County- Hardware & Software Training</td><td>Thu 9/5/19</td><td>Fri 9/6/19</td></tr><tr><td>Gwinnett County- Hardware & Software Training</td><td>Mon 9/9/19</td><td>Wed 9/11/19</td></tr><tr><td>Bartow County- Hardware & Software Training</td><td>Thu 9/12/19</td><td>Fri 9/13/19</td></tr><tr><td>Paulding County- Hardware & Software Training</td><td>Mon 9/9/19</td><td>Wed 9/11/19</td></tr><tr><td>Catoosa County- Hardware & Software Training</td><td>Thu 9/12/19</td><td>Fri 9/13/19</td></tr><tr><td>Carroll County- Hardware & Software Training</td><td>Mon 9/16/19</td><td>Tue 9/17/19</td></tr><tr><td>Bacon County- Hardware & Software Training</td><td>Mon 9/16/19</td><td>Tue 9/17/19</td></tr><tr><td>Evans County- Hardware & Software Training</td><td>Wed 9/18/19</td><td>Thu 9/19/19</td></tr><tr><td>Charlton County- Hardware & Software Training</td><td>Wed 9/18/19</td><td>Thu 9/19/19</td></tr><tr><td>State Level Hardware & Software Training</td><td>Mon 9/23/19</td><td>Thu 10/3/19</td></tr></table>	Implementation Phase 1			Tabulation Hardware	Fri 7/26/19	Fri 9/6/19	Hardware Delivery to Georgia Distribution Facility	Thu 8/1/19	Thu 8/1/19	Pre-Installation/Setup & Acceptance Testing	Thu 8/1/19	Fri 9/6/19	Conduct Pre-Installation/Setup on Voting System	Thu 8/1/19	Fri 8/9/19	Conduct Acceptance on Voting System	Fri 8/2/19	Fri 8/16/19	Sign-off on Delivery & Acceptance Testing	Fri 8/16/19	Fri 8/16/19	Tabulation Hardware	Mon 8/19/19	Wed 8/28/19	Stage & Prepare Hardware for Shipment to County Locations	Mon 8/19/19	Fri 8/23/19	On-site Delivery of Hardware @ County Locations	Wed 8/21/19	Wed 8/28/19	EMS Workstation	Mon 7/8/19	Fri 9/20/19	Order EMS Hardware/Software	Mon 7/8/19	Mon 7/8/19	Stage & Prepare EMS Workstation	Mon 7/15/19	Thu 7/18/19	Ship Hardware to GASOS & Georgia Distribution Site	Tue 7/30/19	Thu 8/1/19	On-site Delivery of EMS Workstation @ GASOS	Thu 8/1/19	Thu 8/1/19	Sign-off on Delivery & Acceptance Testing for GASOS & County EMS	Mon 9/9/19	Thu 9/19/19	Ship Hardware to County Sites	Tue 9/10/19	Thu 9/19/19	On-Site Delivery of EMS Workstation @ County Locations	Tue 9/17/19	Fri 9/20/19	Training- Hardware & Software	Tue 9/3/19	Thu 10/3/19	Fulton County- Hardware & Software Training	Wed 9/4/19	Fri 9/6/19	Treutlen County- Hardware & Software Training	Wed 9/4/19	Thu 9/5/19	Decatur County- Hardware & Software Training	Tue 9/3/19	Wed 9/4/19	Lowdnes County- Hardware & Software Training	Thu 9/5/19	Fri 9/6/19	Gwinnett County- Hardware & Software Training	Mon 9/9/19	Wed 9/11/19	Bartow County- Hardware & Software Training	Thu 9/12/19	Fri 9/13/19	Paulding County- Hardware & Software Training	Mon 9/9/19	Wed 9/11/19	Catoosa County- Hardware & Software Training	Thu 9/12/19	Fri 9/13/19	Carroll County- Hardware & Software Training	Mon 9/16/19	Tue 9/17/19	Bacon County- Hardware & Software Training	Mon 9/16/19	Tue 9/17/19	Evans County- Hardware & Software Training	Wed 9/18/19	Thu 9/19/19	Charlton County- Hardware & Software Training	Wed 9/18/19	Thu 9/19/19	State Level Hardware & Software Training	Mon 9/23/19	Thu 10/3/19	N/A
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Stage & Prepare Hardware for Shipment to County Locations	Mon 8/19/19	Fri 8/23/19																																																																																																			
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Ship Hardware to GASOS & Georgia Distribution Site	Tue 7/30/19	Thu 8/1/19																																																																																																			
On-site Delivery of EMS Workstation @ GASOS	Thu 8/1/19	Thu 8/1/19																																																																																																			
Sign-off on Delivery & Acceptance Testing for GASOS & County EMS	Mon 9/9/19	Thu 9/19/19																																																																																																			
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Training- Hardware & Software	Tue 9/3/19	Thu 10/3/19																																																																																																			
Fulton County- Hardware & Software Training	Wed 9/4/19	Fri 9/6/19																																																																																																			
Treutlen County- Hardware & Software Training	Wed 9/4/19	Thu 9/5/19																																																																																																			
Decatur County- Hardware & Software Training	Tue 9/3/19	Wed 9/4/19																																																																																																			
Lowdnes County- Hardware & Software Training	Thu 9/5/19	Fri 9/6/19																																																																																																			
Gwinnett County- Hardware & Software Training	Mon 9/9/19	Wed 9/11/19																																																																																																			
Bartow County- Hardware & Software Training	Thu 9/12/19	Fri 9/13/19																																																																																																			
Paulding County- Hardware & Software Training	Mon 9/9/19	Wed 9/11/19																																																																																																			
Catoosa County- Hardware & Software Training	Thu 9/12/19	Fri 9/13/19																																																																																																			
Carroll County- Hardware & Software Training	Mon 9/16/19	Tue 9/17/19																																																																																																			
Bacon County- Hardware & Software Training	Mon 9/16/19	Tue 9/17/19																																																																																																			
Evans County- Hardware & Software Training	Wed 9/18/19	Thu 9/19/19																																																																																																			
Charlton County- Hardware & Software Training	Wed 9/18/19	Thu 9/19/19																																																																																																			
State Level Hardware & Software Training	Mon 9/23/19	Thu 10/3/19																																																																																																			

				<p>Dependencies</p> <ul style="list-style-type: none">• Availability of State of Georgia personnel to attend hardware and software training courses. To be completed no later than October 3, 2019.• Availability of County personnel to attend hardware and software training courses. To be completed no later than September 19, 2019.• Availability of training locations at both the county and state locations in order to conduct all training courses. <p>Assurances</p> <ul style="list-style-type: none">• ES&S has resources allocated to the State of Georgia to fulfill any supplemental training needs outside of the master schedule.• ES&S has dedicated resources to conduct training for State Personnel in order to conduct acceptance testing.• ES&S has dedicated resources to conduct Software and Hardware training for all counties participating in the pilot phase, with completion of training by September 19th, 2019.• ES&S has dedicated resources to conduct Software and Hardware training for all necessary State Personnel in order to complete all necessary state documentation, training, and testing for the November General Election. This training will conclude no later than October 3rd, 2019.																																																										
MS	12.5	Provide a roll-out plan for deploying of a representative sample of equipment for each county by December 2019. Reference Attachment O Potential Equipment Distribution.	Please describe the dependencies and assurances to meet the commitments proposed for: Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).	<p>Original Response:</p> <p>Please see the included Project Plan.</p> <p><i>* Additional documentation including project plan were included in the original response. Please see the attached PDF document for the full response.</i></p> <p>Clarifying Information:</p> <p>ES&S is fully committed to meeting the PHASE 2 – Part 1: DECEMBER 31, 2019 and PHASE 2 – Part 2: MARCH 31, 2020 deadlines set forth by the GASOS in the RFP.</p> <p>Equipment Delivery, Pre-Installation/Setup, Acceptance, and Distribution:</p> <p>Phase 2 - Part 1</p> <table><tr><th colspan="3">Implementation Phase 2 Part 1</th></tr><tr><td>Tabulation Hardware</td><td>Mon 8/19/19</td><td>Fri 9/20/19</td></tr><tr><td>Hardware Delivery to Georgia Distribution Facility</td><td>Mon 8/19/19</td><td>Mon 8/19/19</td></tr><tr><td>Pre-Installation/Setup & Acceptance Testing</td><td>Mon 8/19/19</td><td>Tue 9/3/19</td></tr><tr><td>Conduct Pre-Installation/Setup on Voting System</td><td>Mon 8/19/19</td><td>Tue 8/27/19</td></tr><tr><td>Conduct Acceptance on Voting System</td><td>Tue 8/20/19</td><td>Tue 9/3/19</td></tr><tr><td>Sign-off on Delivery & Acceptance Testing</td><td>Tue 9/3/19</td><td>Tue 9/3/19</td></tr><tr><td>Tabulation Hardware</td><td>Wed 8/28/19</td><td>Fri 11/15/19</td></tr><tr><td>Stage & Prepare Hardware for Shipment to County Locations</td><td>Wed 8/28/19</td><td>Thu 9/5/19</td></tr><tr><td>On-site Delivery of Hardware @ County Locations</td><td>Thu 8/29/19</td><td>Fri 11/15/19</td></tr></table> <p>All Phase 2 – Part 1 equipment will be delivered and acceptance tested in the central warehouse facility (on a rolling schedule) by September 3rd, 2019.</p> <p>All Phase 2 – Part 1 equipment will be delivered to counties by November 15th, 2019.</p> <p>Phase 2 - Part 2</p> <table><tr><th colspan="3">Implementation Phase 2 Part 2</th></tr><tr><td>Tabulation Hardware</td><td>Mon 9/23/19</td><td>Fri 1/24/20</td></tr><tr><td>Hardware Delivery to Georgia Distribution Facility</td><td>Mon 9/23/19</td><td>Fri 1/24/20</td></tr><tr><td>Pre-Installation/Setup & Acceptance Testing</td><td>Fri 2/7/20</td><td>Fri 3/13/20</td></tr><tr><td>Conduct Pre-Installation/Setup on Voting System</td><td>Fri 2/7/20</td><td>Fri 2/21/20</td></tr><tr><td>Conduct Acceptance on Voting System</td><td>Mon 2/10/20</td><td>Fri 3/13/20</td></tr><tr><td>Sign-off on Delivery & Acceptance Testing</td><td>Fri 3/13/20</td><td>Fri 3/13/20</td></tr><tr><td>Tabulation Hardware</td><td>Fri 2/21/20</td><td>Mon 3/30/20</td></tr><tr><td>Stage & Prepare Hardware for Shipment to County Locations</td><td>Fri 2/21/20</td><td>Fri 3/13/20</td></tr></table>	Implementation Phase 2 Part 1			Tabulation Hardware	Mon 8/19/19	Fri 9/20/19	Hardware Delivery to Georgia Distribution Facility	Mon 8/19/19	Mon 8/19/19	Pre-Installation/Setup & Acceptance Testing	Mon 8/19/19	Tue 9/3/19	Conduct Pre-Installation/Setup on Voting System	Mon 8/19/19	Tue 8/27/19	Conduct Acceptance on Voting System	Tue 8/20/19	Tue 9/3/19	Sign-off on Delivery & Acceptance Testing	Tue 9/3/19	Tue 9/3/19	Tabulation Hardware	Wed 8/28/19	Fri 11/15/19	Stage & Prepare Hardware for Shipment to County Locations	Wed 8/28/19	Thu 9/5/19	On-site Delivery of Hardware @ County Locations	Thu 8/29/19	Fri 11/15/19	Implementation Phase 2 Part 2			Tabulation Hardware	Mon 9/23/19	Fri 1/24/20	Hardware Delivery to Georgia Distribution Facility	Mon 9/23/19	Fri 1/24/20	Pre-Installation/Setup & Acceptance Testing	Fri 2/7/20	Fri 3/13/20	Conduct Pre-Installation/Setup on Voting System	Fri 2/7/20	Fri 2/21/20	Conduct Acceptance on Voting System	Mon 2/10/20	Fri 3/13/20	Sign-off on Delivery & Acceptance Testing	Fri 3/13/20	Fri 3/13/20	Tabulation Hardware	Fri 2/21/20	Mon 3/30/20	Stage & Prepare Hardware for Shipment to County Locations	Fri 2/21/20	Fri 3/13/20	N/A
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Stage & Prepare hardware for shipment to County Locations		TTT 2/22/20	TTT 2/23/20
On-site Delivery of Hardware @ County Locations		Mon 3/16/20	Mon 3/30/20
<p>All Phase 2 – Part 2 equipment will be delivered and acceptance tested in the central warehouse facility (on a rolling schedule) by March 13th, 2020.</p> <p>All Phase 2 – Part 2 equipment will be delivered to counties by March 30th, 2020.</p>			
EMS EMS Workstation		Mon 7/22/19	Fri 9/20/19
Order EMS Hardware/Software		Mon 7/22/19	Mon 7/22/19
Stage & Prepare EMS Workstation		Mon 8/12/19	Thu 8/15/19
Ship Hardware to Georgia Distribution Site		Fri 8/16/19	Tue 8/20/19
On-site Delivery of EMS Workstation @ Georgia Distribution Site		Tue 8/20/19	Mon 9/2/19
Sign-off on Delivery & Acceptance Testing		Mon 9/9/19	Thu 9/19/19
Ship Hardware to County Sites		Tue 9/10/19	Thu 9/19/19
On-Site Delivery of EMS Workstation @ State/County Locations		Tue 9/17/19	Fri 9/20/19
<p>All Phase 2 EMS deliveries to the GASOS distribution facility will be completed by September 2nd, 2019.</p> <p>Phase 2 EMS deliveries to all counties will be completed by September 20th, 2019.</p>			
<p>Dependencies</p> <ul style="list-style-type: none">Contingent upon signing of contract for Statewide Voting System by July 1st, 2019.Availability of State of Georgia personnel for Acceptance of the Phase 2 Part 1 equipment to be completed by September 3rd, 2019.Availability of remaining counties to accept delivery of equipment for Phase 2 Part 1 by September 6th, 2019.Availability of State of Georgia personnel for Acceptance of the Phase 2 Part 2 equipment to be completed by March 13th, 2020.Availability of remaining counties to accept delivery of equipment for Phase 2 Part 2 by March 30th, 2020.Dependent upon the continuity of requirements outlined in RFP. Any changes to the requirements would necessitate approval through the Project Change Control Process, with agreement of all changes and potential impact on project timelines by all involved parties.			
<p>Assurances</p> <ul style="list-style-type: none">Additional time has been provided for State acceptance testing. Such testing is now scheduled to be done in parallel with ES&S pre-installation activities in preparation for the Phase 1 pilot. ES&S will adjust the proposed pre-installation and acceptance testing schedule to accomodate the schedule of the GASOS.ES&S has committed full-time Field Services resources to the distribution facility for the duration of the acceptance and distribution of equipment and EMS hardware/software to meet the timeline required for the completion of Phase 2 Part 1 by the end of Quarter 4 of 2019 (December 31, 2019). Expected completion is September 6th, 2019.ES&S has committed full-time Field Services resources to the distribution facility for the duration of the acceptance and distribution of equipment to meet the timeline required for the completion of Phase 2 Part 2 by the end of Quarter 1 of 2020 (March 31, 2020).ES&S will have a dedicated distribution facility manager onsite to coordinate the receiving of equipment. The facility manager will also be responsible for shipping to the individual counties once the acceptance testing is complete.ES&S Technical Services team will prepare and test all EMS workstations prior to shipping to the in-state distribution facility to accelerate the pre-installation/setup process.ES&S has dedicated resources to conduct any additional training for State Personnel in order to conduct acceptance testing for both tabulation and EMS systems.			
Tra	Training- Hardware & Software	Mon 11/18/19	Thu 1/30/20
	Seminole County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Brooks County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Camden County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Telfair County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Clay County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Peach County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Hancock County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Jasper County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
	Banks County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
<p>For a complete list of all county training dates, please refer to the project and training plans.</p> <p>All county level training will be completed by January 30th, 2020.</p>			
<p>Dependencies</p> <ul style="list-style-type: none">Availability of County personnel to attend hardware and software training courses. To be completed no later than January 30th, 2020.Availability of training locations at county locations in order to conduct all training courses.			
<p>Assurances</p> <ul style="list-style-type: none">ES&S has resources allocated to the state of GA to fill any gaps should rescheduling become necessary.ES&S has dedicated resources to conduct training for State Personnel in order to conduct acceptance testing.ES&S has dedicated resources to conduct Software and Hardware training for all counties participating in Phase 2, with completion of training expected by January 30th, 2020.ES&S has committed to submitting all training documentation no later than September 4th, 2019 to all 159 counties.			

MS	16.1	Describe your measures in place and commitments to assure availability of products, components, software, services, and other deliverables for possible length of contract with renewals (15+ years). Describe whether second sourcing of generic or proprietary products is available or could be obtained by the GASOS or counties in the event of a failure or disruption in supply by the Supplier; price protection available to assure reasonable market prices for the life of the contract; and options available for services or upgrades from independent service organizations (if any) authorized or licensed by Supplier.	How long does the equipment last? Will the equipment be available for the life of the contract? If the equipment becomes obsolete what is the proposed plan for continuity.	<p>Original Response:</p> <p>ES&S designs and manufactures its voting equipment to withstand normal use without deterioration and without excessive maintenance cost for a minimum lifecycle of 10-15 years, and we have many examples of equipment that surpassed that time frame.</p> <p>To ensure the sustainability of our products throughout its lifecycle and beyond, ES&S engineers its voting system products with an eye on durability, ease of maintenance, and availability of parts and supplies. The ES&S supply chain is the most extensive in the election industry. We have the largest product offering, so we must have a strong supply chain. Product sustainably and lead-time compression is the driving force to having a strong supply chain. We choose long-life industrial-grade components and hardware to ensure we meet and exceed parts availability.</p> <p>We have complete bill of materials for all our product lines. We continually monitor our component inventory supply, customer demand, and supplier availability. ES&S involvement includes inventory management, hardware engineering, manufacturing, purchasing, and field services. Our outside contacts include contract manufacturing partners, manufacturer representatives, manufacturers, and component suppliers. Constant monitoring and effective communications between all manufacturing partners is the main reason why we continue to enjoy success.</p> <p>ES&S' product development strategy is to create purpose-built solutions that are uniquely customized to support a better election experience. This strategy allows us to sustain the products for a longer period of time as we largely don't rely on consumer off the shelf products.</p> <p>ES&S has a large team of highly trained technicians located across the country that can be scheduled as the technical support needs arise.</p> <p>Clarifying Information:</p> <p>The tabulation equipment is built to last for 10-15 years and is available for life of the contract. For our 40 year history, we have never discontinued support of a tabulation product. We will support the tabulation systems for as long as the State of Georgia wants to use it.</p>	N/A
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PROPOSAL CLARIFICATION SUPPLEMENTAL DOCUMENT

Supplier Name: Election Systems & Software, LLC

Point of Contact/Email: Jeb Cameron / jeb.cameron@essvote.com

Date: June 3, 2019

#1.1

Questions:

Describe the history of your business and organizational structure. Describe the organization and ownership structure to include parent companies, divisions, subsidiaries, headquarters, and regional offices. List key personnel including personnel that would supervise implementation of the proposed SVS and provide a CV or resume for each person uploaded as "Organizational Structure."

Clarification Questions:

Please describe the funding relationship with any subcontracted arrangement. Who is the prime and what Supplier will be held accountable for contractual responsibilities. What level of dependency does the solution have on a secondary supplier? How will the risk of dependency on other Suppliers, for key components of the proposed solution, be managed?

CLARIFICATION RESPONSE:

Original Response:

ES&S is the largest elections-only company in the United States with 40 years of experience supporting the elections of 4,500 customers worldwide. We have supported more than 100,000 elections in the last decade alone.

ES&S is a privately-owned Delaware limited liability company. The company was initially incorporated in 1979 as American Information Systems and subsequently incorporated as ES&S in 1997 upon its acquisition of the elections division of Business Records Corporation. On September 2, 2009, ES&S acquired the assets of Premier Election Solutions and Premier-Canada. Effective October 1, 2011, Premier was merged with and into ES&S, and ES&S changed its form of legal entity from a C-corporation to a Delaware limited liability company.

Election Systems and Software, LLC ("ES&S") is a wholly owned subsidiary of Government Systems, Software & Services, Inc. ("GS3"). GS3 is a privately-owned Delaware corporation headquartered in Omaha, NE. The company maintains eight (8) facilities across North America. The project management team is backed by our staff of more than 500 full-time elections professionals.

ES&S is taking a team approach to ensure the State of Georgia is successful in implementing its statewide voting system. From a leadership perspective, we will have the Vice President and Regional Manager of Account Management as well as the Regional Sales Manager overseeing the project team during all implementation activities. ES&S will assign a lead Project Manager, three (3) Account Managers and Regional Coordinators throughout the State as outlined in the below Organizational Chart.

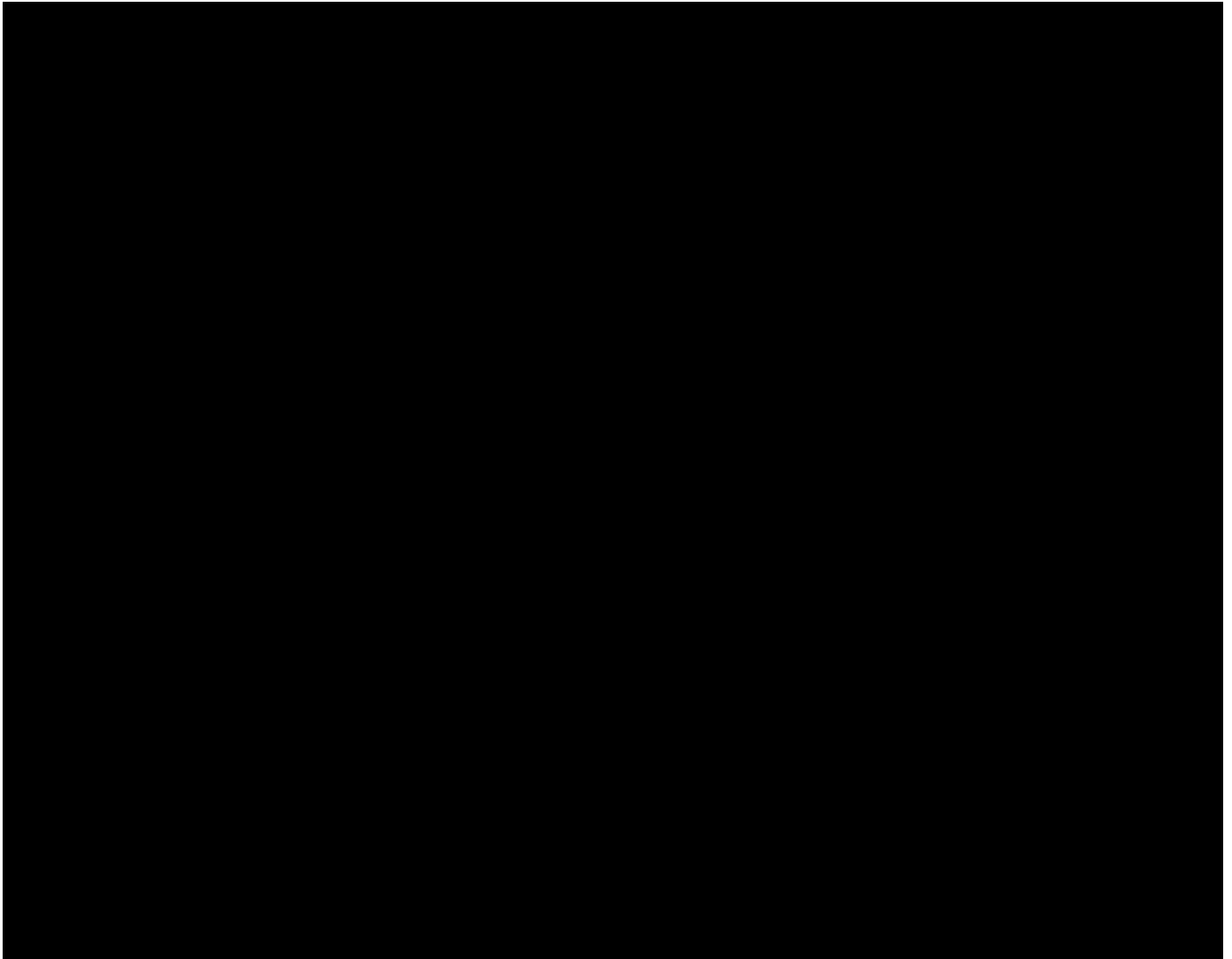
The proposed project team for Georgia will consist of the following key personnel:

- ✔ Jeb Cameron, Contractor Relationship Manager

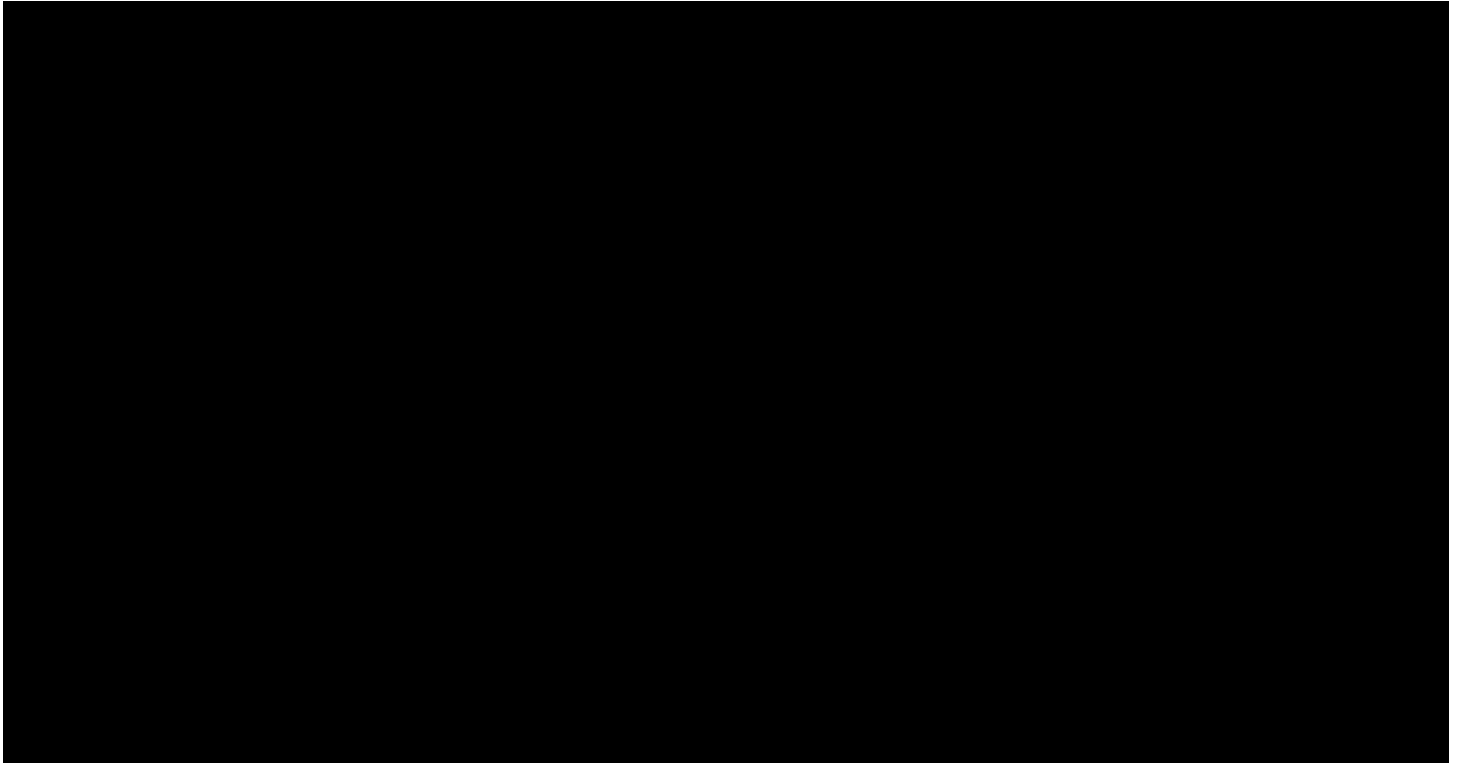
- ✔ Mac Beeson, VP Central Region Sales
- ✔ Linda Bennett, VP, Account Management East
- ✔ Guy Riner, Regional Account Manager
- ✔ Holly Richardson, Project Manager, Account Management
- ✔ Kim Carlisle, Lead Account Manager
- ✔ Staci Jackson, Account Manager
- ✔ Lee Headspeth, Account Manager
- ✔ Angie Butler, Operations Training and Resource Planning Manager
- ✔ Derek Simmons, Regional Manager, Field Service
- ✔ Three (3) ballot builders

Please see the below organizational structure and included resumes for the key personnel.

CONFIDENTIAL



CONFIDENTIAL



Clarifying Information:

ES&S does not intend to utilize any subcontractors in its performance of the services under the Statewide Voting System project. As such, ES&S will be responsible for all contractual responsibilities under the final Statewide Voting System Contract as may be mutually agreed upon by the parties.

#2.2

Questions:

Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.

Clarification Questions:

With consideration of the State's requirement for ""hand held"" paper ballots, in a closed network environment, please clarify the following:

A. Does the capability exist to validate the EMS software/firm using hash validation?

B. If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:

- Initial Acceptance Testing,*
- County Warehouse Pre-Election,*
- Polling Place Setup, and*
- Post Election review (saved as archived documentation).*

CLARIFICATION RESPONSE:

Original Response:

ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.

Election Management System (EMS) election administrators may use access control and role assignment features within the software to restrict access for programs installed. Counties must physically secure any computer system that contains ballot definition files, data acquisition software, or reporting software from access by unauthorized persons.

All ES&S memory devices used are encrypted to prevent unauthorized modifications or copying of data. Our ballot layout and election configuration data are secured to prevent unauthorized modification or copying of the data and to resist hacking and unauthorized access and use.

As an original manufacturer, ES&S will release security patches as we deem necessary and provide a prompt, written notification to State officials in the event of a necessary release.

Clarifying Information: **CONFIDENTIAL**

[illegible]

#2.3

Questions:

Describe the proposed EMS' post -election audit capabilities?

Clarification Questions:

How does the EMS support post election audits of the physical ballots cast? What reports or data export capability is there that would allow for tabulation audit comparison of tabulated results and a physical review and

count of the paper ballots at the: A. Precinct Level, B. Ballot Box Level, and C. Any other level smaller than a precinct.

CLARIFICATION RESPONSE:

Original Response:

The ES&S system will allow counties to effectively and efficiently audit election results while maintaining the secrecy of the ballot. The ES&S system meets stringent requirements for system audits to provide the supporting documentation for verifying the accuracy of reported election results. The DS450/DS850 central tabulator can be used to rapidly perform recounts. Our system includes detailed audit logs, digital images of the ballots or vote summary cards with electronically linked Cast Vote Records (CVRs), paper records, and central tabulator batch/bin reports.

DS450/DS850 AND RECOUNTS

The DS450/DS850 central tabulator can be used to rapidly perform a recount of paper ballots and vote summary cards. If a subset of ballots needs to be counted, the Electionware election management system can quickly identify the Election Districts and ballot styles associated with the recounted contest. Electionware software provides a powerful means for restricting the election definition to a subset of contests or Election Districts specified for a particular recount. This definition can be loaded on the DS450/DS850, allowing for sorting and/or recounting of the ballots in question as permitted under a jurisdiction's election law.

AUDIT LOGS

The ES&S voting solution contains audit logs with sufficient information to allow the auditing of all operations related to election and ballot setup, ballot tabulation, results consolidation and report generation. The system audit logs are created and maintained by the system in the sequence in which operations were performed. All audit logs contain an identification of the program and version being run, identification of the election file being used, record of all operator entries, record of all actions performed by the system or subsystems, record of all tabulation and consolidation input and a record of all ballot or system overrides performed. Only an authorized system administrator can locate, read and print the system audit logs. The machine audit logs for all proposed voting machines list every event that occurs from the time you load your election definition via the USB media drive until you remove the media after the election is complete. These events, which are tagged with time and date, include election-related events, errors and user interactions. The machine audit logs retain entries from all internal components capable of producing an audit log entry, such as the power management board, the hardware board and the election processing firmware. The audit logs from every unit used in the election can also be centrally viewed or printed in Electionware. The Electionware election management system itself creates an audit log that includes all logins and actions performed by each user while logged into the application, including all results database creations, file exports and imports, report printing and results updating processes. This audit log is maintained intact from the initial start of the election cycle to the reporting of official results. In addition to the main audit log, two additional audit logs are maintained for the logging and tracking of results entered via the provided manual entry feature and when last-minute changes are made to contest and or candidate names within the module.

Electionware audit logs are maintained as an archive with every election backup. They include entries that identify the exact change, the date and time of the change, the user ID, and the module impacted.

BALLOT IMAGES/CAST VOTE RECORDS

The units providing tabulation functionality can also capture digital images of each ballot or vote summary card cast and associated Cast Vote Record (CVR), which also can be used for recounts and adjudication.

To ensure security and protect voter anonymity, the ballot images and CVRs are stored with random names assigned to each ballot image file and have their file timestamps obfuscated. Electionware provides online adjudication that retains both the CVR as initially tabulated and the adjudication board's modified CVR. The ballot image, the machine-generated original CVR, and the review board-modified CVR can be reviewed alongside each other.

PAPER TRAIL

The paper ballot or vote summary card also provides an audit trail that is available to counties in the event a recount, including manual recount, if required.

CENTRAL TABULATOR BATCH/BIN REPORTS

The DS450/DS850 central tabulator provides batch/bin reports with information about the ballots in each output bin at the time a batch is saved. The batch/bin reports contain ballot totals for a sort bin for the last batch saved. If ballots have been outstacked to the not-processed bin, the user can view or print the corresponding bin report on demand, which indicates why each ballot in the bin was outstacked. A user can manually print reports on demand or set batch/bin reports to print automatically when a scanned batch of ballots is saved. These reports can be maintained with the physical ballot batch to speed identification and retrieval for audits and recounts.

Clarifying Information:

Electionware is capable of producing results reports at the precinct level, ballot box level, and levels smaller than a precinct. For precinct level reports, go to Precinct Summary and choose the precinct you wish to audit. Compare those results against a hand-tally of the paper ballots. For ballot box level reports where a single PPS counted ballots for multiple precincts, use the custom table report and choose the polling place that's being audited. Finally, to produce a sub-precinct report, for example a split or combo, use the custom table report to isolate the split or combo that's being audited.

Electionware's Reporting module was designed from the ground up to provide flexibility in producing many types of results reports, all of which can be compared against a hand tally of paper ballots for auditing purposes.

#2.6

Questions:

Ease of Use for GASOS and Local Election Officials: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.

Clarification Questions:

How will the proposed EMS assist GASOS in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?

CLARIFICATION RESPONSE:

Original Response:

Please see the included case studies.

UTAH INCREASES VOTER CONFIDENCE

through verifiable ballots and better audits

In the early 2000s, election officials across the country purchased new voting systems thanks to the Help America Vote Act (HAVA). At that time, the State of Utah chose to use their HAVA grant dollars to purchase optical scanners and direct-recording electronic (DRE) voting machines.

Fast forward to over a decade later: vote by mail has become the norm for most counties across Utah. In fact, the majority of registered voters in the state automatically receive a ballot in the mail. While the machines were standing the test of time, the increased popularity of vote by mail was starting to put a lot of pressure on the decade-plus old system that was originally designed for in-precinct voting.

In addition to managing aging voting systems and changes in voting trends, election officials in Utah were facing higher expectations for security and reliability.

The expectation being all voting machines should have the ability to audit and verify that a voter's ballot was recorded and tabulated in accordance with the voter's intent.

In the fall of 2017, the State of Utah designated Election Systems & Software (ES&S) as the state's election management provider of choice. After their extensive assessment of five different election systems providers, the State's evaluation committee determined that ES&S would provide the best value to the State.

"Through a careful and thorough procurement process, the state of Utah has chosen ES&S to lead Utah into the next generation of voting equipment. ES&S offers a wide range of voting equipment options, and I'm confident their secure and innovative election solutions will fit the needs of each county," Utah State Lieutenant Governor, Spencer J. Cox said (October 2017)

Through their extensive assessments, the State Evaluation Committee determined:

- ES&S' Electionware election management system provides a more efficient and intuitive process for ballot layout and design, as well as import and export capabilities.
- ES&S has a tabulation solution for every Utah county, all of which reduce ballot processing time and provide an efficient process for adjudicating ballots.
- ES&S ExpressVote universal voting solution combines paper-based voting with touch-screen technology to meet the needs of voters with disabilities as well as provide a permanent paper record.
- ES&S's longevity, financial stability and reputation position it as the best option to support a roll-out of new equipment in multiple counties in Utah simultaneously, and provide support and maintenance plans at different levels of service and price points.

The Old Utah



Approximately 650
Direct-Recording Electronics
and Optical scanner units



Approximately 940
Direct-Recording Electronics
and Optical scanner units



Approximately 156
Direct-Recording Electronics
and Optical scanner units

ES&S SOLUTIONS

EASY EQUIPMENT SETUP

While nearly every registered voter in Utah receives a ballot by mail, registered voters may still vote in-person on or before Election Day. In Utah, accessible voting centers are available for voters with disabilities who need assistance completing their ballot and registered voters who prefer to cast their ballot in person during early voting and on Election Day.

Weber County Elections Director Ryan Cowley was impressed with the set-up process for their new ES&S equipment. "Way, way easy. The poll workers love the easy set up — remove the locks, verify the label and lift the lid. They can focus on making sure the polling place is organized, rather than rushing to get equipment set up. It's a huge time savings. Polling place set up is not a big deal anymore, it's so simple."

"The ES&S ExpressVotes are just so much easier to use. Before, we were spending hours and hours setting up the equipment on election morning," Summit County Clerk, Kent Jones said. "On Election Day, we use the ExpressVote as a ballot marker. Voters mark their selections, print their vote summary card and then those cards are tabulated together with the ballots that came in the mail. Everything's done centrally, so we handle and see everything."



The New Utah



- (18) Ballot on Demands
- (2) DS450s
- (14) DS200s
- (9) ExpressVotes



- (27) Ballot on Demands
- (2) DS450s
- (19) DS200s
- (25) ExpressVotes



- (1) DS450
- (18) ExpressVotes

FAST, SECURE BALLOT TABULATION

With the move to vote by mail, Utah officials needed to use the optical scan machines to process election results. Utah's old optical scanners, which were originally purchased to tabulate a small number of absentee ballots, required each ballot be hand fed into the machine.

"For the 2016 presidential election, Davis County mailed out 150,000 ballots and had a total vote turnout of 140,000. We ran all 140,000 ballots by hand through four older optical scanners, one at a time. It was very labor-intensive," Davis County Elections Manager Brian McKenzie said. "With the ES&S DS450 we can just put them in a stack and let them run."

With their old optical scanners, Davis County had four staff members counting ballots full time. With their new ES&S DS450, they have one-to-two team members who spend about a fourth of the time counting ballots.

McKenzie said, *"We can keep two of the DS450s running with one, one and a half people. As one person, I couldn't work as fast as the machines."*

IMPROVED POST-ELECTION AUDITING AND ADJUDICATION

When Utah counties started using DREs in the early 2000s, the state began requiring post-election audits. Typically, the process required a team of three people to audit each machine — one person to read the tape and two people to simultaneously record votes, making sure counts matched throughout. On average, the process took about two hours.

"I have to say that I could not be more pleased with how this (ES&S) system performed and counted the ballots. Being able to compare not only how the system originally counted a ballot, but also how the ballot was adjudicated, back to the digital image of the ballot itself is truly amazing. For the first time in my career, I feel like we have a transparent and auditable system," Cowley said.

"Compared to our previous system, thanks to auto adjudication we had far less to look at. We were inspecting every ballot before we ran it through the old optical scan machine. We didn't do any of that this time - we just ran them through," Jones said.

COMPREHENSIVE ONBOARDING AND TRAINING

Utah's onboarding process with ES&S was under a compressed timeline. ES&S onboarded 19 counties in 3-4 months.

"We changed everything except for voter registration — every piece of equipment that we used to process ballots was brand new. New accessible machines, new Ballot-on-Demand machines, new precinct tabulators, new central count tabulators, and new adjudication and audit process and procedures," Cowley said. "Receipt of the equipment and the training was all very timely. The ES&S team worked with about 50 people from 21 counties demonstrating each piece of equipment — leading detailed discussions about the equipment and how we saw it working for us. The team also helped with creating new policies and procedures. We received



"When we (Davis County) did our previous audits, we would only audit the races we were required to. With the new system we figured, the whole ballot is there, let's just look at everything," McKenzie said. "We did a full audit of the entire ballot, for all races. It was a more thorough audit, it covered all the races, and it only took two hours. We were just like, 'wow, it's so much better.'"



lot of support up front, and then we're able to take that and run with it."

McKenzie said, "Our experience from the beginning up to this point with ES&S has been phenomenal. Starting out, just getting to know the ES&S system went really well, and we were so impressed with the information ES&S could provide, coupled with the general feel of professionalism of the ES&S team. The organization and logistics when we were implementing the new system was really really good, the coordination of taking out the old equipment and bringing in the new equipment, the training, the people who came in and set us up and answered any questions we had, was great."

"Learning about the new equipment was probably the easiest transition it could have been. There wasn't a huge learning curve. ES&S simplified everything," Jones said. "We spent more time teaching the judges about the signature verification process than it took to learn the equipment."

CUSTOMER SERVICE EXCELLENCE

ES&S integrates good customer service into every aspect of our business. Our enthusiasm for the work we do and for our customers is unrivaled. ES&S' team of seasoned election professionals are empowered to think on their feet and work closely with our election administration partners to customize secure and innovative solutions to fit their needs.

Davis said, "The one thing that I would just sing praises to is the customer support – when we've had to call in with any type of question, whether it be concerning software or hardware support – the people on the other end of the line were phenomenal. I've personally experienced several instances where they have gone above and beyond. There was one time when I called in, it was near end of business day, and they gave me a solution. They made themselves available after their own hours to follow up and make sure we were able to implement the solution. All of them are so good at asking questions to make sure they fully understand the situation, and then they walk you through the process. Never have I felt like I was wasting their time and never are they frustrated. I can't say enough good things about the customer support. We've had really good experiences with everyone from ES&S. If someone has a bad experience with ES&S, you'd hear about it – and we don't."



"I'm going to brag about ES&S for a little bit," Weber County Elections Director Ryan Cowley said. "One of the things I think you guys always nail is customer support. With our previous vendors there was literally no support — things like trying to get parts and supplies, we just didn't get anything. The level of support we get from ES&S is a cultural thing — it's all about making sure you get the customer what they need. There is a much higher customer-service philosophy at ES&S."



Enhancing Elections in WILSON COUNTY

Upgrading voting technology can be a daunting task. The varied needs of election officials make it necessary for systems to multitask, now and in the future. For Wilson County, Tennessee, the ExpressVote and DS200 provided a viable, secure and flexible solution for this year's election cycle and beyond.

With a reputation for some of the best-run elections in Tennessee, the Wilson County Election Commission took the job of finding new voting technology quite seriously. An Election Systems & Software (ES&S) customer since 2006, their iVotronics were aging and a viable replacement would soon be needed. Realizing customer needs had changed, ES&S worked diligently to get the [ExpressVote](#)® Universal Voting System certified in the State of Tennessee, providing Wilson County with an enhanced voting solution. After extensive testing along with the [DS200](#)® precinct scanner, Wilson decided to extend their partnership with ES&S and purchase visionary voting solutions. During their August 4 Primary, which marked their first use of the ExpressVote and DS200, both poll workers and voters experienced a simplified Election Day while enjoying the extra security of verifiable paper records and streamlined polling place procedures.

CHALLENGES

- **Quick implementation.** Wilson County faced a quick turnaround period for implementation. Within eight weeks, poll workers were trained and equipment was delivered, tested and deployed for the August Primary.
- **No major adjustments for voters.** Wilson County wanted to ensure voters were able to exercise their right to vote without added complication or confusion during the Primary.
- **New Election Day/Night procedures.** New processes for opening and closing the polls were necessary and poll workers needed to be trained to enable the new voting solutions to work seamlessly on Election Day.

SOLUTIONS

- **Familiar interface + added security.** Wilson County voters were already familiar with touch screen voting. Their printed vote records allowed them a last minute review before casting their vote.
- **Streamlined poll place opening/closing.** The easy set-up requirements for both the ExpressVote and DS200 empowered many poll workers. Poll places were opened and ready for voters in less time without requiring troubleshooting calls to Election Central. Poll workers also enjoyed simple closing procedures and a single memory stick to keep track of.
- **Ease on Election Night.** Unofficial results were reported faster as less memory sticks were needed for uploads (one per precinct). Absentee and provisional ballot processing was also streamlined.
- **Platform for the future.** Phillip Warren, Administrator of Elections, remarked "We try to improve on the processes already in place. We try to be proactive and think ahead — everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote."
- **Setting the standard.** With their successful implementation during the August Primary, Wilson County hopes other jurisdictions take the step forward to enhance their elections with new technology.



Selecting a new system

During evaluation, Wilson County conducted 17 large school elections comparing the performance of the ExpressVote and DS200 configuration with the iVotronics. At one of the school elections in particular, 1700 votes were cast in less than 2 hours! Due diligence was important as the Elections Commission wanted to ensure they were wisely spending taxpayer funds on the best system available for Wilson County voter needs.

Ultimately, Wilson selected the ExpressVote and DS200. Finding the overall system attractive, Phillip and Tammy noted benefits such as:

- User friendliness
- Paper records adding clear voter intent
- Ease of mind having a paper back-up
- Attractive system from an administrative standpoint
- Flexibility for future needs

The County wanted to ensure voters and poll workers would quickly be able to utilize the new system during their August Primary. The familiar interface made this possible as voters were used to the look and feel of going up to a touch screen and inserting a card (think a trip to the ATM). Wilson simply swapped a debit card with an Activation Card.

Wilson County also appreciated the human component of ES&S. During the development of the ExpressVote, ES&S conducted focus groups that Wilson participated in where actual suggestions and needs that counties brought up were incorporated.

“What I liked about ES&S is that they listened. They took a lot of our ideas that we had in the small group and they implemented them and came back with a new product” Tammy Smith, Assistant Administrator, commented. “During a visit after that, we told them we were looking for products and couldn’t find them. The next time we saw them, they brought us a catalog!”

“Everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote.”

- Phillip Warren, Administrator of Elections

Changes for poll workers

Technology has been integrated with all systems, causing a shift in the demographics for poll workers. Outside of their partnerships with local high schools who provide student poll workers, many of the older poll workers are technologically savvy ones. Wilson County requires potential poll workers to go online and fill out their application, the first step towards showing tech literacy. With new skill sets required, it has opened the field to a wider and more capable pool of poll workers and decreased many of the minor tech support issues counties can face when workers aren’t familiar with updated systems. The county believes more people will now want to serve as poll workers thanks to the lighter equipment and easy opening and closing procedures.



In light of this, Wilson County makes sure that updated technology isn’t a barrier for those looking to serve yet not matching the required skill set level. “We try to configure our poll place system in a way that if they aren’t good with computers we can find a place for them if possible on Election Day” Tammy added.

For poll workers, the change was a welcome one that did not require major adjustment. As the system is intuitive, most found it easy to learn and had no worries on Election Day. Of the poll workers interviewed during the Primary, many echoed the county’s comparison of the system to a grocery store self check-out. “Tammy & Phillip do a good job. Every year our elections get tighter, from training to Election Day. It’s so organized people can almost go through the process on autopilot.”

One, who indicated she had a computer background, complimented the start to finish technology integrations. “Going from a more manual process of selecting ballot styles for people, this is much preferred. There’s no real error, you just print their barcode and they follow the instructions on screen from there.”

Signs directing voters through the voting process resemble stations you'd see at a back to school night. From the cheerful face who hands you your Activation Card with barcode, indicating your correct ballot style, to the gentlemen handing the mom and daughter an "I Voted" sticker after depositing their vote record into the DS200, Election Day in Wilson County is a stress-free affair.

"Nothing in the constitution says this has to be complicated" added Warren. "This system proves that because it's simple and it works."

Leading the charge

When asked one of the biggest take-aways from the implementation of their new system, Smith remarked "One thing I wish election offices were more open to is technology and change. We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

Upgraded technology means less time training poll workers and troubleshooting during an election. Many counties are tasked with doing innovative things with less money than they had 10 years ago, while also improving the experience for all who participate. Embracing technology, preparing for the future and planning for today can pay off in spades once implemented.

"We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

- Tammy Smith, Assistant Administrator

"We've been able to save weeks on the backend in closing out the election and auditing, while realizing thousands of dollars in cost savings from salaries."

Additionally, the technology benefits of the system extend for many past Election Day. "In the beginning, some poll workers didn't even know the computer basics or use it in their everyday life (no cell phones). Now a lot of them have their own tablet devices, all because they were introduced to more technology while serving as a poll worker" said Smith.

To learn more about our visionary voting suite which includes the ExpressVote and DS200 contact your ES&S representative or visit our [website](#).



Results

- 1 Smoother canvass and hand count
- 2 Reduced number of morning follow up calls
- 3 Success means that results are ready 2-3 hours sooner



Susan Thomas, Harrison County Clerk



“All you have to do is touch your selections, check your printed ballot and put it into the tabulator.”

“**Georgianna Thompson,**
Taylor County Clerk

“Commissioners were not excited about spending the money. I was fully prepared to continue maintaining the old equipment. The ExpressVote convinced them that it will pay dividends in the future.”

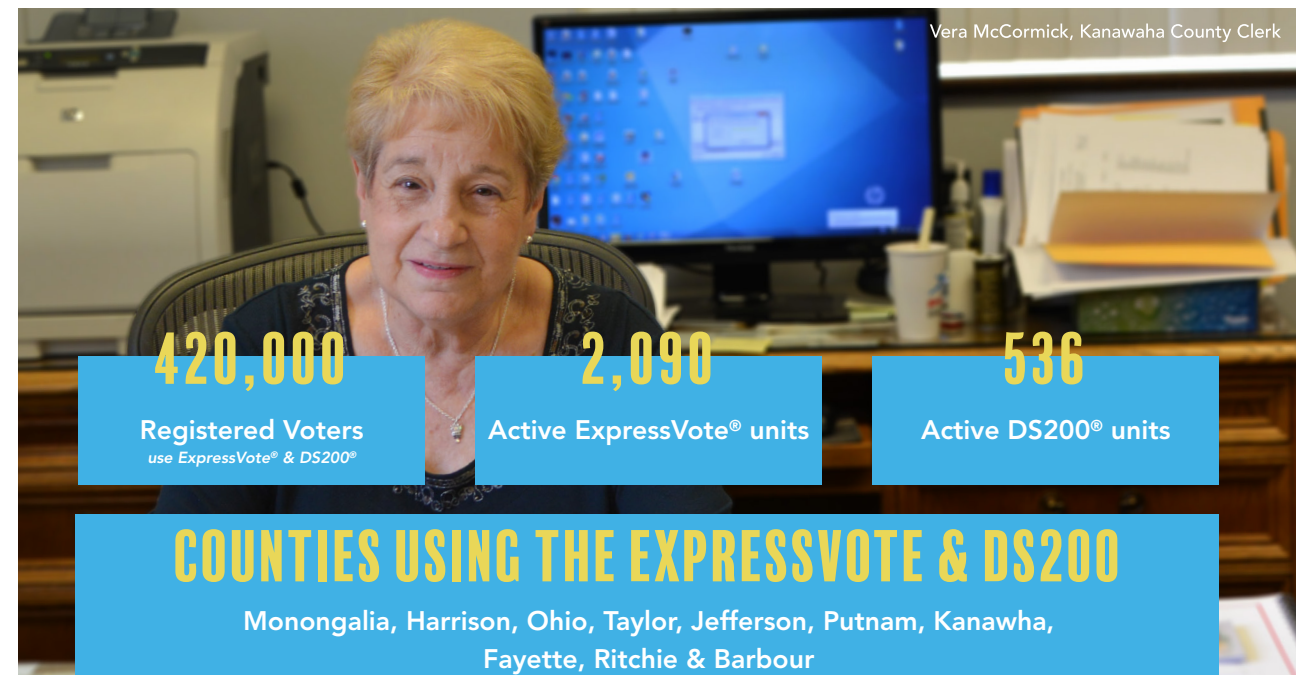
“**Brian Wood,**
Putnam County Clerk

SEE FOR YOURSELF!
Call to request a demo!

HOW WEST VIRGINIA'S Election Officials Are Reducing Costs

While Improving the Election Experience for Voters & Poll Workers

Many voters across the U.S. are casting their ballots on a generation of aging, decade-plus old optical scan and direct-recording electronic (DRE) voting machines. Election officials nationwide rushed to embrace new voting technology after Congress passed the Help America Vote Act (HAVA) in 2002, which addressed the way ballots were designed, cast and counted, and led to an overhaul of the U.S. election system and eventually the birth of the DRE and optical scan machines. **Ten plus years later another major overhaul of the U.S. election system is underway, and a number of states are seriously considering a return to paper-based voting systems.**



*stats are current as of October 2017

As with many states in the early 2000s, West Virginia faced various challenges related to becoming compliant with HAVA. At the close of the 2005 West Virginia Legislative regular session, during which a voter-verified paper trail bill was signed into law, Secretary of State Betty Ireland began her search for a pioneering elections partner that could help West Virginia do three things: 1) meet the requirements of HAVA, 2) reduce the financial burden of becoming compliant off the counties as much as possible, and 3) offer counties quality voting system options.

In August 2005, ES&S was awarded the statewide contract to provide all of West Virginia’s counties with voting systems and election services. And in 2006, just over half of West Virginia’s 55 counties, whose County Clerks manage elections at the local level, purchased DRE systems while the remaining chose to purchase optical scan voting systems paired with central scanners, creating a dual system environment across the state.

Why the change?

Fast forward ten more years, similar to many states across the U.S., while their existing voting systems were withstanding the test of time, West Virginia’s jurisdictions began the process to find a more modern system that offered a paper-verifiable record.



Brian Wood, Putnam County Clerk

“Our equipment was aging. Having partnered with ES&S for ten plus years, we knew they were always developing solutions that made our lives easier and were more efficient, dependable and cost-effective.”


“The ExpressVote® was the best of both worlds with the electronic aspect, including improved visibility and ADA compliance, along with the paper verification where the voter can hold their selections in their hands, confirm everything is accurate, and then place it in the DS200® ballot slot.”


They were also ready to put away the challenges associated with their aging equipment and find a solution that simplified election management and improved voters’ experience at the polls. Much like the avid flip-phone users, whose carriers still supported their phones, and whose flip-phones still made calls — they ultimately realized how much easier and more efficient their life could be if they had a smartphone.

“So much less to worry about and less upkeep. We no longer have to deal with all of the different consumables,” said Susan Thomas, Harrison County Clerk. “You plug them in, flip a switch, lift a screen and both are powered up within five minutes. Plus, with ExpressVote and DS200 everything is a lot simpler for us on the backend.”

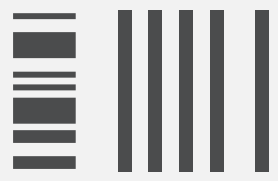
It was important to them that their new equipment made the backend of their elections easier for not only themselves and their teams, but the poll workers as well. Equipment that wasn’t hard to haul around, was easier to program and would ease the burden of having to hand count write-in and canvass ballots.

“The ballots marked on the ExpressVote require less storage due to their size, and the leftover blank cardstock can be reused in other elections. We can do satellite voting now, and don’t have to carry all of those preprinted ballots with us.”





Vera McCormick,
Kanawha County Clerk



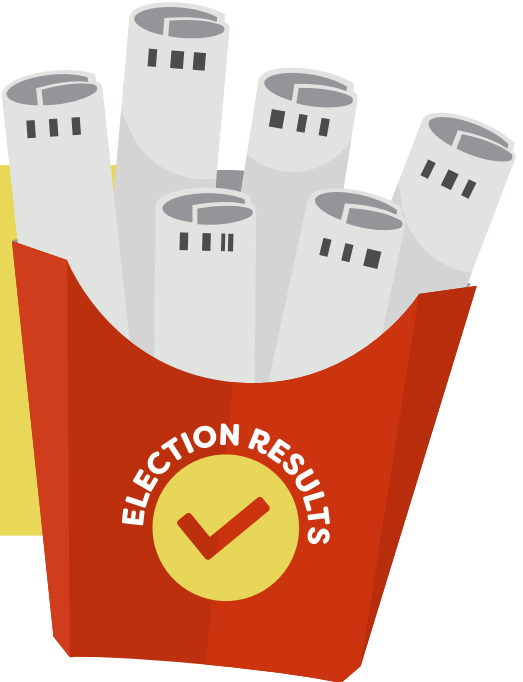
“Canvass and hand count went very smoothly; the ballot was easy to read and easy to determine the voter’s intent. NO OVERVOTES!”

The clerks wanted a truly usable summary report of the final results, a more robust in-depth audit report. They wanted to deliver their county’s election results before 3 a.m. so the candidates and the people who had worked so hard supporting them could either get their parties started or start picking up campaign signs.

“We live in a fast food world, and people want their results right away”

“The candidates and their supporters have worked for a long time to get there, so they are very anxious to get the results. So is the media ... it’s nice to give them what they need, and get them back to work by 10 p.m. instead of 3 a.m.”

Brian Wood, Putnam County Clerk



Most importantly, they wanted every one of their voters to have a consistent, simple and secure election experience. This included having only one system to vote on, that was easy to use and that included a verifiable paper record that allowed them to confirm that the selections they marked were what they intended.

“We demo’ed the equipment in several different locations with seniors, many of which who were in their 90s. We didn’t really have to explain much to them as far as how to use it, and everyone liked it,” said McCormick. “They liked having a piece of paper in their hand that they could hold, so there was no guessing.”

Clarifying Information:

Our Electionware Election Management System (EMS), is easy to use and provides tremendous flexibility and scalability to create elections in multiple languages, design ballots for the most complex ballot style elections, configure the proposed digital tabulation and accessible equipment, and manage election results. Electionware's ability to use data and election templates from past elections, as well as built-in ballot templates, eliminates the need to re-enter data or recreate templates with each new election. These powerful capabilities enable election administrators to create error-free elections in less time.

KEY COST AND TIME SAVINGS FEATURES:

- * Electionware's ability to use data from past elections as well as built-in ballot templates and the ability to save election templates enables election administrators to create error-free elections in less time.
- * Electionware is intuitive, easy-to-use software that streamlines workflow and removes repetition of tasks.
- * Electionware allows multiple teams of election officials to simultaneously work on different elections.
- * Fast data import; re-use of election and ballot layout templates; simple translation and audio file management; multiple simultaneous users; ballot image filtering, viewing and printing
- * Single user interface. The multi-function modules are delivered through a single user interface to better manage and streamline access to information. Common database and customer-specific settings provide seamless movement among modules, simplifying execution of key tasks.
- * Flexible ballot design. Electionware's Paper Ballot module provides significant flexibility in ballot design, allowing many of our users to use smaller ballots and, in several instances, move from a multi-sheet ballot to a single sheet.

ES&S has proven experience helping the GASOS and local election officials meet their database deadlines. We know the importance of both accuracy and efficiency, and have successfully delivered on both when it comes to statewide ballot building.

We designed Electionware specifically to save time in preparing statewide databases through its feature called Election Templates.

Election Templates contain election-specific information such as contests, candidates, and ballot questions. It also contains downstream content like ballot designs and voting machine options such as screen messaging and reporting options. All data included in the template is carried forward to eliminate repetitive actions for all 159 databases.

In Georgia, ballot builders would first collaborate on building a statewide template. This template would include all statewide contests, candidates, questions, and any other statewide data - including audio - that is re-usable for each county database. The template would also include a Georgia ballot design, as well as standard tabulator options such as the number of Zero and Results tapes automatically printed on Election Day. Electionware's import capabilities further assist in streamlining the process by adding local contests, candidates, and ballot questions without the need to manually enter county-level data across 159 databases.

#2.7

Questions:

Describe how the proposed EMS will support the building of ADA accessible ballots.

Clarification Questions:

What specific functionality of the voting system shall “be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters consistent with federal laws and regulations.

CLARIFICATION RESPONSE:

Original Response:

Electionware’s Paper Ballot feature allows the user designing a ballot to preview a paper ballot onscreen throughout the creation process, including the final product.

Electionware also makes programming the ExpressVote very simple because the ExpressVote Accessible Ballot is automatically created as the Paper Ballot is being designed. This provides consistency and reduces the time it takes to create the ballot layout for more than one equipment type. A single source for ballot design also ensures that the same data is used once. This saves time on both layout and proofing.

Electionware includes an ExpressVote Previewer that provides an emulation of the ballot as it will appear on the ExpressVote Universal Voting System.

Clarifying Information:

The EMS creates speech-to-text audio files that allow the blind and visually impaired voters the same opportunity for access and participation as for other voters consistent with federal laws and regulations.

#3.2

Questions:

Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.

Clarification Questions:

A. *Does the capability exist to validate the software/firmware on the PPS using hash validation?*

B. *If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:*

- *Initial Acceptance Testing,*
- *County Warehouse Pre-Election,*
- *Polling Place Setup, and*
- *Post Election review (saved as archived documentation).*

CLARIFICATION RESPONSE:

Original Response:

ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.

ES&S tabulator firmware is inaccessible once installed. ES&S ballot tabulators are single-purpose devices that prevent overwriting or changing the election definition or system firmware once an election official installs the election program. Firmware and operating systems for ES&S tabulators reside in locations physically separate from each tabulator's election program. No source code, compiler or assemblers are resident in ES&S device firmware. To prevent alteration of executable code, the jurisdiction must provide a secure physical and procedural environment for the storage, handling, preparation, and transportation of the system hardware.

From a physical security standpoint, the DS200 has keyed locks and seals to protect all ballot box compartments, the tabulator platform, ballot slot, USB media device, and all other critical system components. The ES&S DS200 election definition is stored on a USB media device inside a tamper-proof, sealed, key-locked compartment. A wire seal can be placed on the media device itself to further provide physical security. The access door remains locked throughout Election Day, and the media device can remain sealed in the DS200 until the polls are closed and the media devices are removed and transported to Election Central for results accumulation.

Electionware and the DS200 share a robust Digital Signature and access code security feature. This feature provides a high level of security for data transferred between the election management software and the DS200. This system utilizes a public and private key management and security process which includes access code protection to prevent unauthorized access to critical system functions.

The actions of activating the terminal and changing the system-operating mode are physically restricted with a physical key. Administrative menus cannot be accessed without a system access code.

Clarifying Information: CONFIDENTIAL

[illegible]

#3.3

Questions:

Describe your PPS' tabulation process.

Clarification Questions:

What is the model and size of the PPS proposed? Attach a picture.

CLARIFICATION RESPONSE:

Original Response:

The DS200 scanner and tabulator scans voted ballots and/or ExpressVote vote summary cards. Ballots will scan successfully when inserted in any of four orientations. It can scan a variety of ballot sizes, including ExpressVote vote summary cards. Both sides of the ballot are processed simultaneously with high-resolution scanners and the resulting ballot images are decoded using our patented PTRACT™ and IMR™ technology to determine what constitutes as a mark for a candidate. Tabulated voter selections are stored to a USB flash drive. The flash drive is removable from the system for transport to a central election location where vote totals are consolidated for reporting. The device also has an optional backup flash drive.

The DS200 has a large, easy-to-use, touch-screen interface for voter and poll worker communication. It also includes an integrated thermal printer for Election Day printing of zero reports at the opening of the polls, machine totals and log reports and polling place totals upon the official closing of the polls. The unit also has a USB flash drive for loading the election definition and storing results, and an internal battery pack for reliable power in the event of a power outage.



Clarifying Information:

PPS Model: DS200 polling place scanner and tabulator

PPS Size: 41"H x 23"W x 26"D with lid closed for transport

#3.4

Questions:

Describe what functions the PPS provides to assist with post election audits?

Clarification Questions:

How does the PPS support post election audits of the physical ballots cast? What reports or data export capability is there that would allow for tabulation audit comparison of tabulated results and a physical review and

count of the paper ballots at the: A. Precinct Level, B. Ballot Box Level, and C. Any other level smaller than a precinct.

CLARIFICATION RESPONSE:

Original Response:

The DS200 has the ability to save an image from both the front and back of the ballot. These images can be displayed in Electionware side by side with the cast vote record for the ballot image. This allows for fast and convenient post-election audits.

Clarifying Information:

The DS200 tabulates paper ballots that may be audited post-election. Many jurisdictions who use the DS200 will randomly select a number of precincts and hand count the ballots from those precincts. The hand-count totals are then compared to the original results tape produced by the DS200.

With regard to audits of ballots at the (A) Precinct Level and (B) Ballot Box level, please know the DS200 captures and reports each precinct's results separately -- even if multiple precincts are included on the same machine. This means a hand count of just one precinct's ballots or a hand count of all ballots in the ballot box can be audited against the Precinct and Poll reports generated by the DS200. For scenario C (any other level smaller than a precinct), a hand count of a split precinct can also be verified. However, in this situation, the DS200's Precinct Report is replaced by Electionware's Custom Table Report.

#3.5

Questions:

Ease of Use for Local Election Officials and Voters: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.

Clarification Questions:

What is the size and total weight of the PPS when the scanner is connected and locked with the ballot receptacle? For the following ballot layouts, how many can the receptacle hold? 14" BMD/Mail Out ABS Ballot, 18" BMD/Mail Out ABS Ballot, or other sizes. What is the weight, when full? What can be expected in a power failure? Can ballots be stored and extracted for tabulation at a later time?

CLARIFICATION RESPONSE:

Original Response:

Please see the included case studies.

UTAH INCREASES VOTER CONFIDENCE

through verifiable ballots and better audits

In the early 2000s, election officials across the country purchased new voting systems thanks to the Help America Vote Act (HAVA). At that time, the State of Utah chose to use their HAVA grant dollars to purchase optical scanners and direct-recording electronic (DRE) voting machines.

Fast forward to over a decade later: vote by mail has become the norm for most counties across Utah. In fact, the majority of registered voters in the state automatically receive a ballot in the mail. While the machines were standing the test of time, the increased popularity of vote by mail was starting to put a lot of pressure on the decade-plus old system that was originally designed for in-precinct voting.

In addition to managing aging voting systems and changes in voting trends, election officials in Utah were facing higher expectations for security and reliability.

The expectation being all voting machines should have the ability to audit and verify that a voter's ballot was recorded and tabulated in accordance with the voter's intent.

In the fall of 2017, the State of Utah designated Election Systems & Software (ES&S) as the state's election management provider of choice. After their extensive assessment of five different election systems providers, the State's evaluation committee determined that ES&S would provide the best value to the State.

"Through a careful and thorough procurement process, the state of Utah has chosen ES&S to lead Utah into the next generation of voting equipment. ES&S offers a wide range of voting equipment options, and I'm confident their secure and innovative election solutions will fit the needs of each county," Utah State Lieutenant Governor, Spencer J. Cox said (October 2017)

Through their extensive assessments, the State Evaluation Committee determined:

- ES&S' Electionware election management system provides a more efficient and intuitive process for ballot layout and design, as well as import and export capabilities.
- ES&S has a tabulation solution for every Utah county, all of which reduce ballot processing time and provide an efficient process for adjudicating ballots.
- ES&S ExpressVote universal voting solution combines paper-based voting with touch-screen technology to meet the needs of voters with disabilities as well as provide a permanent paper record.
- ES&S's longevity, financial stability and reputation position it as the best option to support a roll-out of new equipment in multiple counties in Utah simultaneously, and provide support and maintenance plans at different levels of service and price points.

The Old Utah



Approximately 650
Direct-Recording Electronics
and Optical scanner units



Approximately 940
Direct-Recording Electronics
and Optical scanner units



Approximately 156
Direct-Recording Electronics
and Optical scanner units

ES&S SOLUTIONS

EASY EQUIPMENT SETUP

While nearly every registered voter in Utah receives a ballot by mail, registered voters may still vote in-person on or before Election Day. In Utah, accessible voting centers are available for voters with disabilities who need assistance completing their ballot and registered voters who prefer to cast their ballot in person during early voting and on Election Day.

Weber County Elections Director Ryan Cowley was impressed with the set-up process for their new ES&S equipment. "Way, way easy. The poll workers love the easy set up — remove the locks, verify the label and lift the lid. They can focus on making sure the polling place is organized, rather than rushing to get equipment set up. It's a huge time savings. Polling place set up is not a big deal anymore, it's so simple."

"The ES&S ExpressVotes are just so much easier to use. Before, we were spending hours and hours setting up the equipment on election morning," Summit County Clerk, Kent Jones said. "On Election Day, we use the ExpressVote as a ballot marker. Voters mark their selections, print their vote summary card and then those cards are tabulated together with the ballots that came in the mail. Everything's done centrally, so we handle and see everything."



The New Utah



- (18) Ballot on Demands
- (2) DS450s
- (14) DS200s
- (9) ExpressVotes



- (27) Ballot on Demands
- (2) DS450s
- (19) DS200s
- (25) ExpressVotes



- (1) DS450
- (18) ExpressVotes

FAST, SECURE BALLOT TABULATION

With the move to vote by mail, Utah officials needed to use the optical scan machines to process election results. Utah's old optical scanners, which were originally purchased to tabulate a small number of absentee ballots, required each ballot be hand fed into the machine.

"For the 2016 presidential election, Davis County mailed out 150,000 ballots and had a total vote turnout of 140,000. We ran all 140,000 ballots by hand through four older optical scanners, one at a time. It was very labor-intensive," Davis County Elections Manager Brian McKenzie said. "With the ES&S DS450 we can just put them in a stack and let them run."

With their old optical scanners, Davis County had four staff members counting ballots full time. With their new ES&S DS450, they have one-to-two team members who spend about a fourth of the time counting ballots.

McKenzie said, *"We can keep two of the DS450s running with one, one and a half people. As one person, I couldn't work as fast as the machines."*

IMPROVED POST-ELECTION AUDITING AND ADJUDICATION

When Utah counties started using DREs in the early 2000s, the state began requiring post-election audits. Typically, the process required a team of three people to audit each machine — one person to read the tape and two people to simultaneously record votes, making sure counts matched throughout. On average, the process took about two hours.

"I have to say that I could not be more pleased with how this (ES&S) system performed and counted the ballots. Being able to compare not only how the system originally counted a ballot, but also how the ballot was adjudicated, back to the digital image of the ballot itself is truly amazing. For the first time in my career, I feel like we have a transparent and auditable system," Cowley said.

"Compared to our previous system, thanks to auto adjudication we had far less to look at. We were inspecting every ballot before we ran it through the old optical scan machine. We didn't do any of that this time - we just ran them through," Jones said.

COMPREHENSIVE ONBOARDING AND TRAINING

Utah's onboarding process with ES&S was under a compressed timeline. ES&S onboarded 19 counties in 3-4 months.

"We changed everything except for voter registration — every piece of equipment that we used to process ballots was brand new. New accessible machines, new Ballot-on-Demand machines, new precinct tabulators, new central count tabulators, and new adjudication and audit process and procedures," Cowley said. "Receipt of the equipment and the training was all very timely. The ES&S team worked with about 50 people from 21 counties demonstrating each piece of equipment — leading detailed discussions about the equipment and how we saw it working for us. The team also helped with creating new policies and procedures. We received



"When we (Davis County) did our previous audits, we would only audit the races we were required to. With the new system we figured, the whole ballot is there, let's just look at everything," McKenzie said. "We did a full audit of the entire ballot, for all races. It was a more thorough audit, it covered all the races, and it only took two hours. We were just like, 'wow, it's so much better.'"



lot of support up front, and then we're able to take that and run with it."

McKenzie said, "Our experience from the beginning up to this point with ES&S has been phenomenal. Starting out, just getting to know the ES&S system went really well, and we were so impressed with the information ES&S could provide, coupled with the general feel of professionalism of the ES&S team. The organization and logistics when we were implementing the new system was really really good, the coordination of taking out the old equipment and bringing in the new equipment, the training, the people who came in and set us up and answered any questions we had, was great."

"Learning about the new equipment was probably the easiest transition it could have been. There wasn't a huge learning curve. ES&S simplified everything," Jones said. "We spent more time teaching the judges about the signature verification process than it took to learn the equipment."

CUSTOMER SERVICE EXCELLENCE

ES&S integrates good customer service into every aspect of our business. Our enthusiasm for the work we do and for our customers is unrivaled. ES&S' team of seasoned election professionals are empowered to think on their feet and work closely with our election administration partners to customize secure and innovative solutions to fit their needs.

Davis said, "The one thing that I would just sing praises to is the customer support – when we've had to call in with any type of question, whether it be concerning software or hardware support – the people on the other end of the line were phenomenal. I've personally experienced several instances where they have gone above and beyond. There was one time when I called in, it was near end of business day, and they gave me a solution. They made themselves available after their own hours to follow up and make sure we were able to implement the solution. All of them are so good at asking questions to make sure they fully understand the situation, and then they walk you through the process. Never have I felt like I was wasting their time and never are they frustrated. I can't say enough good things about the customer support. We've had really good experiences with everyone from ES&S. If someone has a bad experience with ES&S, you'd hear about it – and we don't."



"I'm going to brag about ES&S for a little bit," Weber County Elections Director Ryan Cowley said. "One of the things I think you guys always nail is customer support. With our previous vendors there was literally no support — things like trying to get parts and supplies, we just didn't get anything. The level of support we get from ES&S is a cultural thing — it's all about making sure you get the customer what they need. There is a much higher customer-service philosophy at ES&S."



essvote.com



Enhancing Elections in WILSON COUNTY

Upgrading voting technology can be a daunting task. The varied needs of election officials make it necessary for systems to multitask, now and in the future. For Wilson County, Tennessee, the ExpressVote and DS200 provided a viable, secure and flexible solution for this year's election cycle and beyond.

With a reputation for some of the best-run elections in Tennessee, the Wilson County Election Commission took the job of finding new voting technology quite seriously. An Election Systems & Software (ES&S) customer since 2006, their iVotronics were aging and a viable replacement would soon be needed. Realizing customer needs had changed, ES&S worked diligently to get the [ExpressVote](#)® Universal Voting System certified in the State of Tennessee, providing Wilson County with an enhanced voting solution. After extensive testing along with the [DS200](#)® precinct scanner, Wilson decided to extend their partnership with ES&S and purchase visionary voting solutions. During their August 4 Primary, which marked their first use of the ExpressVote and DS200, both poll workers and voters experienced a simplified Election Day while enjoying the extra security of verifiable paper records and streamlined polling place procedures.

CHALLENGES

- **Quick implementation.** Wilson County faced a quick turnaround period for implementation. Within eight weeks, poll workers were trained and equipment was delivered, tested and deployed for the August Primary.
- **No major adjustments for voters.** Wilson County wanted to ensure voters were able to exercise their right to vote without added complication or confusion during the Primary.
- **New Election Day/Night procedures.** New processes for opening and closing the polls were necessary and poll workers needed to be trained to enable the new voting solutions to work seamlessly on Election Day.

SOLUTIONS

- **Familiar interface + added security.** Wilson County voters were already familiar with touch screen voting. Their printed vote records allowed them a last minute review before casting their vote.
- **Streamlined poll place opening/closing.** The easy set-up requirements for both the ExpressVote and DS200 empowered many poll workers. Poll places were opened and ready for voters in less time without requiring troubleshooting calls to Election Central. Poll workers also enjoyed simple closing procedures and a single memory stick to keep track of.
- **Ease on Election Night.** Unofficial results were reported faster as less memory sticks were needed for uploads (one per precinct). Absentee and provisional ballot processing was also streamlined.
- **Platform for the future.** Phillip Warren, Administrator of Elections, remarked "We try to improve on the processes already in place. We try to be proactive and think ahead — everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote."
- **Setting the standard.** With their successful implementation during the August Primary, Wilson County hopes other jurisdictions take the step forward to enhance their elections with new technology.



Selecting a new system

During evaluation, Wilson County conducted 17 large school elections comparing the performance of the ExpressVote and DS200 configuration with the iVotronics. At one of the school elections in particular, 1700 votes were cast in less than 2 hours! Due diligence was important as the Elections Commission wanted to ensure they were wisely spending taxpayer funds on the best system available for Wilson County voter needs.

Ultimately, Wilson selected the ExpressVote and DS200. Finding the overall system attractive, Phillip and Tammy noted benefits such as:

- User friendliness
- Paper records adding clear voter intent
- Ease of mind having a paper back-up
- Attractive system from an administrative standpoint
- Flexibility for future needs

The County wanted to ensure voters and poll workers would quickly be able to utilize the new system during their August Primary. The familiar interface made this possible as voters were used to the look and feel of going up to a touch screen and inserting a card (think a trip to the ATM). Wilson simply swapped a debit card with an Activation Card.

Wilson County also appreciated the human component of ES&S. During the development of the ExpressVote, ES&S conducted focus groups that Wilson participated in where actual suggestions and needs that counties brought up were incorporated.

“What I liked about ES&S is that they listened. They took a lot of our ideas that we had in the small group and they implemented them and came back with a new product” Tammy Smith, Assistant Administrator, commented. “During a visit after that, we told them we were looking for products and couldn’t find them. The next time we saw them, they brought us a catalog!”

“Everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote.”

- Phillip Warren, Administrator of Elections

Changes for poll workers

Technology has been integrated with all systems, causing a shift in the demographics for poll workers. Outside of their partnerships with local high schools who provide student poll workers, many of the older poll workers are technologically savvy ones. Wilson County requires potential poll workers to go online and fill out their application, the first step towards showing tech literacy. With new skill sets required, it has opened the field to a wider and more capable pool of poll workers and decreased many of the minor tech support issues counties can face when workers aren’t familiar with updated systems. The county believes more people will now want to serve as poll workers thanks to the lighter equipment and easy opening and closing procedures.



In light of this, Wilson County makes sure that updated technology isn’t a barrier for those looking to serve yet not matching the required skill set level. “We try to configure our poll place system in a way that if they aren’t good with computers we can find a place for them if possible on Election Day” Tammy added.

For poll workers, the change was a welcome one that did not require major adjustment. As the system is intuitive, most found it easy to learn and had no worries on Election Day. Of the poll workers interviewed during the Primary, many echoed the county’s comparison of the system to a grocery store self check-out. “Tammy & Phillip do a good job. Every year our elections get tighter, from training to Election Day. It’s so organized people can almost go through the process on autopilot.”

One, who indicated she had a computer background, complimented the start to finish technology integrations. “Going from a more manual process of selecting ballot styles for people, this is much preferred. There’s no real error, you just print their barcode and they follow the instructions on screen from there.”

Signs directing voters through the voting process resemble stations you'd see at a back to school night. From the cheerful face who hands you your Activation Card with barcode, indicating your correct ballot style, to the gentlemen handing the mom and daughter an "I Voted" sticker after depositing their vote record into the DS200, Election Day in Wilson County is a stress-free affair.

"Nothing in the constitution says this has to be complicated" added Warren. "This system proves that because it's simple and it works."

Leading the charge

When asked one of the biggest take-aways from the implementation of their new system, Smith remarked "One thing I wish election offices were more open to is technology and change. We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

Upgraded technology means less time training poll workers and troubleshooting during an election. Many counties are tasked with doing innovative things with less money than they had 10 years ago, while also improving the experience for all who participate. Embracing technology, preparing for the future and planning for today can pay off in spades once implemented.

"We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

- Tammy Smith, Assistant Administrator

"We've been able to save weeks on the backend in closing out the election and auditing, while realizing thousands of dollars in cost savings from salaries."

Additionally, the technology benefits of the system extend for many past Election Day. "In the beginning, some poll workers didn't even know the computer basics or use it in their everyday life (no cell phones). Now a lot of them have their own tablet devices, all because they were introduced to more technology while serving as a poll worker" said Smith.

To learn more about our visionary voting suite which includes the ExpressVote and DS200 contact your ES&S representative or visit our [website](#).



Results

- 1 Smoother canvass and hand count
- 2 Reduced number of morning follow up calls
- 3 Success means that results are ready 2-3 hours sooner



Susan Thomas, Harrison County Clerk



“All you have to do is touch your selections, check your printed ballot and put it into the tabulator.”

“**Georgianna Thompson,**
Taylor County Clerk

“Commissioners were not excited about spending the money. I was fully prepared to continue maintaining the old equipment. The ExpressVote convinced them that it will pay dividends in the future.”

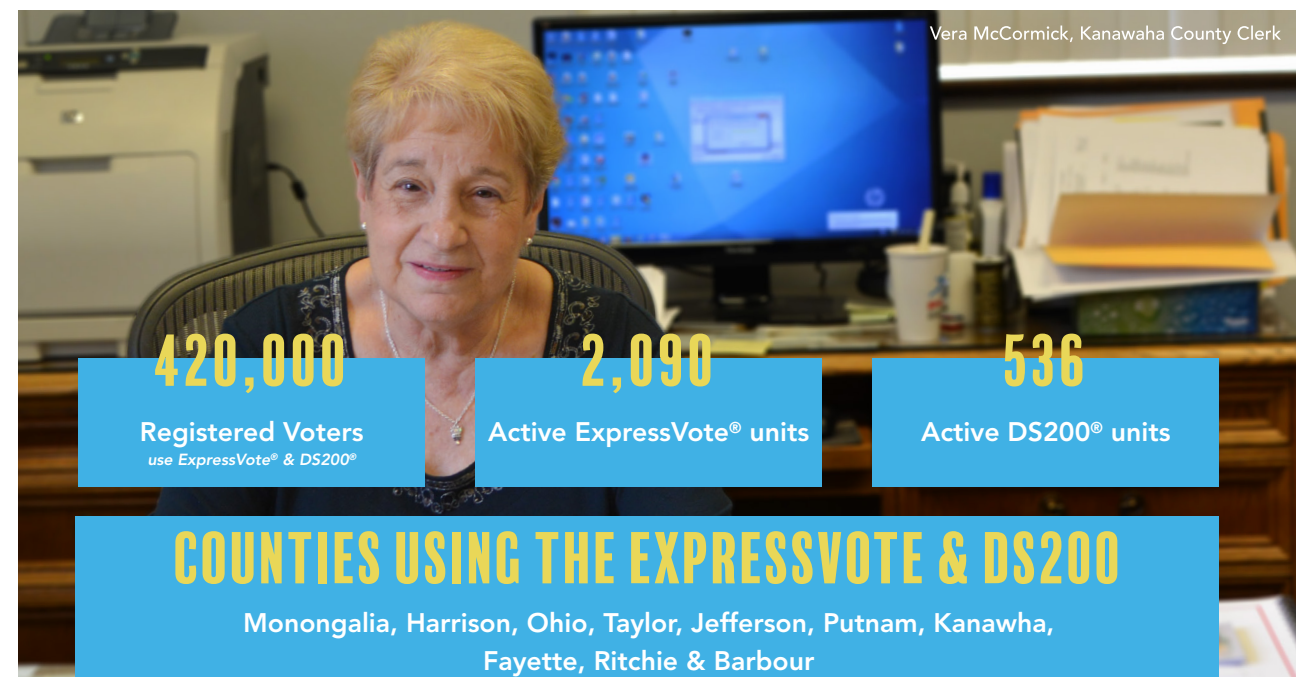
“**Brian Wood,**
Putnam County Clerk

SEE FOR YOURSELF!
Call to request a demo!

HOW WEST VIRGINIA'S Election Officials Are Reducing Costs

While Improving the Election Experience for Voters & Poll Workers

Many voters across the U.S. are casting their ballots on a generation of aging, decade-plus old optical scan and direct-recording electronic (DRE) voting machines. Election officials nationwide rushed to embrace new voting technology after Congress passed the Help America Vote Act (HAVA) in 2002, which addressed the way ballots were designed, cast and counted, and led to an overhaul of the U.S. election system and eventually the birth of the DRE and optical scan machines. **Ten plus years later another major overhaul of the U.S. election system is underway, and a number of states are seriously considering a return to paper-based voting systems.**



Vera McCormick, Kanawha County Clerk

*stats are current as of October 2017

As with many states in the early 2000s, West Virginia faced various challenges related to becoming compliant with HAVA. At the close of the 2005 West Virginia Legislative regular session, during which a voter-verified paper trail bill was signed into law, Secretary of State Betty Ireland began her search for a pioneering elections partner that could help West Virginia do three things: 1) meet the requirements of HAVA, 2) reduce the financial burden of becoming compliant off the counties as much as possible, and 3) offer counties quality voting system options.

In August 2005, ES&S was awarded the statewide contract to provide all of West Virginia’s counties with voting systems and election services. And in 2006, just over half of West Virginia’s 55 counties, whose County Clerks manage elections at the local level, purchased DRE systems while the remaining chose to purchase optical scan voting systems paired with central scanners, creating a dual system environment across the state.

Why the change?

Fast forward ten more years, similar to many states across the U.S., while their existing voting systems were withstanding the test of time, West Virginia’s jurisdictions began the process to find a more modern system that offered a paper-verifiable record.



Brian Wood, Putnam County Clerk

“Our equipment was aging. Having partnered with ES&S for ten plus years, we knew they were always developing solutions that made our lives easier and were more efficient, dependable and cost-effective.”

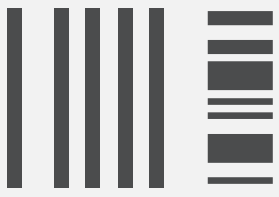
“The ExpressVote® was the best of both worlds with the electronic aspect, including improved visibility and ADA compliance, along with the paper verification where the voter can hold their selections in their hands, confirm everything is accurate, and then place it in the DS200® ballot slot.”

They were also ready to put away the challenges associated with their aging equipment and find a solution that simplified election management and improved voters’ experience at the polls. Much like the avid flip-phone users, whose carriers still supported their phones, and whose flip-phones still made calls — they ultimately realized how much easier and more efficient their life could be if they had a smartphone.

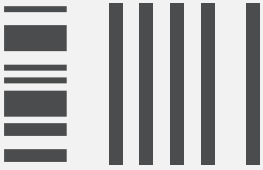
“So much less to worry about and less upkeep. We no longer have to deal with all of the different consumables,” said Susan Thomas, Harrison County Clerk. “You plug them in, flip a switch, lift a screen and both are powered up within five minutes. Plus, with ExpressVote and DS200 everything is a lot simpler for us on the backend.”

It was important to them that their new equipment made the backend of their elections easier for not only themselves and their teams, but the poll workers as well. Equipment that wasn’t hard to haul around, was easier to program and would ease the burden of having to hand count write-in and canvass ballots.

“The ballots marked on the ExpressVote require less storage due to their size, and the leftover blank cardstock can be reused in other elections. We can do satellite voting now, and don’t have to carry all of those preprinted ballots with us.”



Vera McCormick,
Kanawha County Clerk



“Canvass and hand count went very smoothly; the ballot was easy to read and easy to determine the voter’s intent. NO OVERVOTES!”

The clerks wanted a truly usable summary report of the final results, a more robust in-depth audit report. They wanted to deliver their county’s election results before 3 a.m. so the candidates and the people who had worked so hard supporting them could either get their parties started or start picking up campaign signs.

“We live in a fast food world, and people want their results right away”

“The candidates and their supporters have worked for a long time to get there, so they are very anxious to get the results. So is the media ... it’s nice to give them what they need, and get them back to work by 10 p.m. instead of 3 a.m.”

Brian Wood, Putnam County Clerk



Most importantly, they wanted every one of their voters to have a consistent, simple and secure election experience. This included having only one system to vote on, that was easy to use and that included a verifiable paper record that allowed them to confirm that the selections they marked were what they intended.

“We demo’ed the equipment in several different locations with seniors, many of which who were in their 90s. We didn’t really have to explain much to them as far as how to use it, and everyone liked it,” said McCormick. “They liked having a piece of paper in their hand that they could hold, so there was no guessing.”

Clarifying Information:

When connected and locked with the ballot receptible, the DS200 is 41"H x 23"W x 26"D and weighs 88 pounds.

The DS200 includes a blue tote bin inside the plastic ballot box enclosure where ballots are deposited throughout the day. The blue tote bin is lockable and sealable and allows the ballots to be transported to election central after poll closing in a secure manner. The removable blue tote bin helps poll workers manage the ballot box, provide an easy way to transport ballots at the end of the night, and eliminate the need to remove or otherwise handle the marked ballots. At the end of night, poll workers close both doors, lock and seal the bin, and use the telescoping handle to move the bin on wheels for a secure, easy and light transport.

The blue tote bin holds 3,000 ExpressVote ballots that are 11, 14, 17, and 19-inch in length and will weigh 42-48 pounds when full. It holds 2,000 Mail Out ABS ballots that are 11, 14, 17, and 19-inch in length and will weigh 65-74 pounds when full.

The DS200 has a built-in backup battery. In the event of a power failure, the DS200 seamlessly reverts to the battery. Images will continue to be stored on the USB memory device inserted in to the DS200. Those images can be collected upon restoration of power. The battery supplies 4-6 hours of use.

In the case of full power failure, or other unlikely emergency, the voting process remains uninterrupted. Voters can deposit their ballots in DS200's the built-in auxiliary bin. The ballots in this bin are securely maintained separately from the tabulated ballots for easy extraction and tabulation.

#3.8

Questions:

Describe how the proposed PPS will support ADA accessibility for scanning ballots.

Clarification Questions:

What specific functionality of the voting system shall "be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters consistent with federal laws and regulations.

CLARIFICATION RESPONSE:

Original Response:

ExpressVote meets and exceeds the most rigorous 1.0 Voluntary Voting Systems Guidelines and HAVA section 301 accessibility requirements providing the industry-leading universal voting system for all eligible voters without discrimination of voters with disabilities.

Paired with the DS200, which meets all the Common Standards of the Accessibility requirement in VVSG Volume 1 – Section 2.2.7.1, the ExpressVote produces an accessible paper-based record for subsequent tabulation.

Clarifying Information:

The DS200 accepts ballots in any orientation including face-down for voter privacy. The DS200 utilizes a tactile embossed arrow for non-sighted voters to feel for the correct area to feed in the ballot. The tactile slot and arrow provide physical guidance to a non-sighted voter to vote privately and independently.

#4.2

Questions:

Describe your CSD tabulation process.

Clarification Questions:

What is the model and size of the CSD proposed? Attach a picture.

CLARIFICATION RESPONSE:

Original Response:

The DS200/DS450/DS850 employs two patented imaging technologies, Intelligent Mark Recognition (IMR), and Positive Target Recognition & Alignment Compensation (PTRAC), to ensure that ballot target areas are read accurately and consistently, protecting voter intent and significantly reducing adjudication. The DS200/DS450/DS850 scans and tabulates simultaneously.

PTRAC corrects for variations in ballot alignment and printing, allowing the scanner to zero in on the marking area and digitally subtract the outline of the voting target to read only the voter's mark.

IMR then analyzes the marked pattern to determine whether the mark is valid. It can detect check marks, Xs and other common voter marks even though the number of pixels contained in the mark would not meet typical thresholds. Our competitors' optical scanners require you to set an arbitrary pixel threshold to determine what counts as a mark.

Instead, sophisticated algorithms analyze the mark's darkness (pixel density) and its directionality to determine if it was intentional. Unlike less-sophisticated scanners, the DS200/DS450/DS850 is not fooled by erasures or other stray marks and is not confused by lighter or thinner marks that would be missed by a simple threshold.

The DS450/DS850 can scan folded and other damaged ballots with full sorting options enabled. The DS450/DS850 has been uniquely designed to accept ballots that have been folded. The DS450/DS850 uses a patented technology known as TruGrip™, to provide constant contact with each ballot. By using axled, double-rollers throughout the transport and triple rollers in the imaging area, full control of the ballot is ensured from start to finish.

The DS450/DS850's TruGrip™ transport and motorized input and main output bins provide exceptional high-speed scanning of folded and damaged ballots. The DS450/DS850 has successfully counted millions of folded absentee ballots for customers in numerous elections with excellent handling of the ballots, even when the ballots were damaged.

Clarifying Information:

CSD Model: DS200 central scanner and tabulator

CSD Size: 23"W x 41"H x 26"D and weighs 88 pounds

CSD Model: DS450 central scanner and tabulator

CSD Size: 45"W x 21"H x 20"D and weighs 135 pounds.

CSD Model: DS850 central scanner and tabulator

CSD Size: 41"W x 37"H x 18"D and weighs 200 pounds.



DS200



DS450



DS850

#4.3

Questions:

Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.

Clarification Questions:

- A. Does the capability exist to validate the software/firmware on the CSD using hash validation?
- B. If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:
 - Initial Acceptance Testing,
 - County Warehouse Pre-Election,
 - Polling Place Setup, and
 - Post Election review (saved as archived documentation).

CLARIFICATION RESPONSE:

Original Response:

ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of

automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.

Logic and Accuracy tests are performed using a pre-marked test deck that is properly representative of the election. The Electionware EMS provides an easy means of generating a test deck marked with the jurisdiction's required ballots and voting patterns.

Our Automated Test Deck Creation module found within Electionware Toolbox software provides a spreadsheet chart of predetermined results as well as a set of PDF files with pre-marked ovals. The information needed to create the test deck comes directly from the Electionware election definition.

The DS450/DS850 can be setup in minutes to run these ballots, generate results, and be cleared and ready for the election. Zero and Results Reports from the test can be printed at the machine and results can be transferred to Electionware using a secure USB transfer. Test data is easily cleared after the pre-election test to allow printing of zero reports, scanning of election ballots, and printing and transfer of election results.

DS200

ES&S tabulator firmware is inaccessible once installed. ES&S ballot tabulators are single-purpose devices that prevent overwriting or changing the election definition or system firmware once an election official installs the election program. Firmware and operating systems for ES&S tabulators reside in locations physically separate from each tabulator's election program. No source code, compiler or assemblers are resident in ES&S device firmware. To prevent alteration of executable code, the jurisdiction must provide a secure physical and procedural environment for the storage, handling, preparation, and transportation of the system hardware.

From a physical security standpoint, the DS200 has keyed locks and seals to protect all ballot box compartments, the tabulator platform, ballot slot, USB media device, and all other critical system components. The ES&S DS200 election definition is stored on a USB media device inside a tamper-proof, sealed, key-locked compartment. A wire seal can be placed on the media device itself to further provide physical security. The access door remains locked throughout Election Day, and the media device can remain sealed in the DS200 until the polls are closed and the media devices are removed and transported to Election Central for results accumulation. Electionware and the DS200 share a robust Digital Signature and access code security feature. This feature provides a high level of security for data transferred between the election management software and the DS200. This system utilizes a public and private key management and security process which includes access code protection to prevent unauthorized access to critical system functions.

The actions of activating the terminal and changing the system-operating mode are physically restricted with a physical key. Administrative menus cannot be accessed without a system access code.

DS450/DS850

DS450/DS850 security features ensure the highest level of physical and system-level security for the central count environment:

Data and system validation. The DS450/DS850 provides easy validation for all resident firmware against certified versions and generates detailed audit and event logs to support system vetting. In addition, it validates and accepts only data that contains the proper digital data encryption and signing.

Strong physical access controls. The DS450/DS850 secures all data ports behind clear plastic lockable and sealable access doors to protect access and allow election officials to easily detect unauthorized access. All critical hardware components can be locked and sealed, as well. The DS450/DS850 logs when the imaging heads are accessed. It provides additional alerts and logs access to the service door on the back of the unit.

Role-based access codes. The DS450/DS850 provides access codes that allow access for operator and administrative roles. Access code protection is configurable to protect all operations of the applications. Pass codes are required to access all critical functions, including Election Administration, Processing Modes, System and Hardware Maintenance, and Results functions. Supervisor functions are limited to the controls provided in the system menus.

Protection against improper configuration. The system functions will not execute if it is improperly configured.

Clarifying Information: CONFIDENTIAL

11/11/2016

#4.4

Questions:

Describe how the CSD assists with post-election audits.

Clarification Questions:

How does the CSD support post election audits of the physical ballots cast? What reports or data export capability is there that would allow for tabulation audit comparison of tabulated results and a physical review and

count of the paper ballots at the: A. Precinct Level, B. Ballot Box Level, and C. Any other level smaller than a precinct.

CLARIFICATION RESPONSE:

Original Response:

The ES&S system will allow the State to effectively and efficiently audit election results while maintaining the secrecy of the ballot.

The ES&S system meets stringent requirements for system audits to provide the supporting documentation for verifying the accuracy of reported election results. The DS450/DS850 central tabulator can be used to rapidly perform recounts. Our system includes detailed audit logs, digital images of the ballots or vote summary cards with electronically linked Cast Vote Records (CVRs), paper records, and central tabulator batch/bin reports.

DS200

The DS200 has the ability to save an image from both the front and back of the ballot. These images can be displayed in Electionware side by side with the cast vote record for the ballot image. This allows for fast and convenient post-election audits.

DS450/DS850 AND RECOUNTS

The DS450/DS850 central tabulator can be used to rapidly perform a recount of paper ballots and vote summary cards.

If a subset of ballots needs to be counted, the Electionware election management system can quickly identify the Election Districts and ballot styles associated with the recounted contest. Electionware software provides a powerful means for restricting the election definition to a subset of contests or Election Districts specified for a particular recount.

This definition can be loaded on the DS450/DS850, allowing for sorting and/or recounting of the ballots in question as permitted under a jurisdiction's election law.

AUDIT LOGS

The ES&S voting solution contains audit logs with sufficient information to allow the auditing of all operations related to election and ballot setup, ballot tabulation, results consolidation and report generation. The system audit logs are created and maintained by the system in the sequence in which operations were performed.

All audit logs contain an identification of the program and version being run, identification of the election file being used, record of all operator entries, record of all actions performed by the system or subsystems, record of all tabulation and consolidation input and a record of all ballot or system overrides performed. Only an authorized system administrator can locate, read and print the system audit logs.

The machine audit logs for all proposed voting machines list every event that occurs from the time you load your election definition via the USB media drive until you remove the media after the election is complete. These events, which are tagged with time and date, include election-related events, errors and user interactions. The machine audit logs retain entries from all internal components capable of producing an audit

log entry, such as the power management board, the hardware board and the election processing firmware. The audit logs from every unit used in the election can also be centrally viewed or printed in Electionware.

The Electionware election management system itself creates an audit log that includes all logins and actions performed by each user while logged into the application, including all results database creations, file exports and imports, report printing and results updating processes. This audit log is maintained intact from the initial start of the election cycle to the reporting of official results. In addition to the main audit log, two additional audit logs are maintained for the logging and tracking of results entered via the provided manual entry feature and when last-minute changes are made to contest and or candidate names within the module.

Electionware audit logs are maintained as an archive with every election backup. They include entries that identify the exact change, the date and time of the change, the user ID, and the module impacted.

BALLOT IMAGES/CAST VOTE RECORDS

The units providing tabulation functionality can also capture digital images of each ballot or vote summary card cast and associated Cast Vote Record (CVR), which also can be used for recounts and adjudication.

To ensure security and protect voter anonymity, the ballot images and CVRs are stored with random names assigned to each ballot image file and have their file timestamps obfuscated. Electionware provides online adjudication that retains both the CVR as initially tabulated and the adjudication board's modified CVR. The ballot image, the machine-generated original CVR, and the review board-modified CVR can be reviewed alongside each other.

PAPER TRAIL

The paper ballot or vote summary card also provides an audit trail that is available to counties in the event a recount, including manual recount, if required.

CENTRAL TABULATOR BATCH/BIN REPORTS

The DS450/DS850 central tabulator provides batch/bin reports with information about the ballots in each output bin at the time a batch is saved. The batch/bin reports contain ballot totals for a sort bin for the last batch saved. If ballots have been outstacked to the not-processed bin, the user can view or print the corresponding bin report on demand, which indicates why each ballot in the bin was outstacked. A user can manually print reports on demand or set batch/bin reports to print automatically when a scanned batch of ballots is saved. These reports can be maintained with the physical ballot batch to speed identification and retrieval for audits and recounts.

Clarifying Information:

DS200 (as a PPS or CSD)

The DS200 tabulates paper ballots that may be audited post-election. Many jurisdictions who use the DS200 will randomly select a number of precincts and hand count the ballots from those precincts. The hand-count totals are then compared to the original results tape produced by the DS200.

With regard to audits of ballots at the (A) Precinct Level and (B) Ballot Box level, please know the DS200 captures and reports each precinct's results separately -- even if multiple precincts are included on the same machine. This means a hand count of just one precinct's ballots or a hand count of all ballots in the ballot

box can be audited against the Precinct and Poll reports generated by the DS200. For scenario C (any other level smaller than a precinct), a hand count of a Split Precinct can also be verified. In this situation, the DS200's Precinct report is replaced by a Electionware's custom table report.

DS450/DS850

Both of these high speed central scanners can be programmed to spray an unique identifying number on every ballot scanned. The ballots can then be randomly selected to be compared against their vote cast record with the same unique identifying number. ES&S is committed to supporting modern post-election audit procedures, including risk limiting audits (RLA). We have implemented a number of RLA features with even more support coming in future releases.

If a paper-based RLA is desired, the DS450/DS850 can print a serial number on each ballot. The serial number is small and printed near the corner of the ballot, but most importantly it is printed after the ballot has been scanned and processed. This allows for a pristine image capture of the ballot as it was marked by the voter. As results data is transferred from the DS450/DS850 to the Electionware software, Electionware maintains a database of all ballot serial numbers, corresponding ballot images, and corresponding cast vote records (CVR).

Since the ballot, image, and CVR are now linked, any ballot that is randomly selected for audit can now easily be located and reviewed. For example, if ballot number 123456789 is randomly selected for audit, the user can:

- ✔ Locate the ballot because the number is printed on the ballot,
- ✔ Locate the ballot image in Electionware by simply entering the ballot number, and
- ✔ View the CVR for the ballot in Electionware. The CVR provides details on the ballot's tabulation.

ES&S believes these features are tremendously helpful for any jurisdiction that is seeking to perform a risk limiting audit.

In future releases, we will be adding similar serialization functionality to the DS200 and ExpressVote.

#4.5

Questions:

Ease of Use for Local Election Officials: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.

Clarification Questions:

How will the proposed CSD assist Local Election Officials counties in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?

CLARIFICATION RESPONSE:

Original Response:

Please see included case studies.

UTAH INCREASES VOTER CONFIDENCE

through verifiable ballots and better audits

In the early 2000s, election officials across the country purchased new voting systems thanks to the Help America Vote Act (HAVA). At that time, the State of Utah chose to use their HAVA grant dollars to purchase optical scanners and direct-recording electronic (DRE) voting machines.

Fast forward to over a decade later: vote by mail has become the norm for most counties across Utah. In fact, the majority of registered voters in the state automatically receive a ballot in the mail. While the machines were standing the test of time, the increased popularity of vote by mail was starting to put a lot of pressure on the decade-plus old system that was originally designed for in-precinct voting.

In addition to managing aging voting systems and changes in voting trends, election officials in Utah were facing higher expectations for security and reliability.

The expectation being all voting machines should have the ability to audit and verify that a voter's ballot was recorded and tabulated in accordance with the voter's intent.

In the fall of 2017, the State of Utah designated Election Systems & Software (ES&S) as the state's election management provider of choice. After their extensive assessment of five different election systems providers, the State's evaluation committee determined that ES&S would provide the best value to the State.

"Through a careful and thorough procurement process, the state of Utah has chosen ES&S to lead Utah into the next generation of voting equipment. ES&S offers a wide range of voting equipment options, and I'm confident their secure and innovative election solutions will fit the needs of each county," Utah State Lieutenant Governor, Spencer J. Cox said (October 2017)

Through their extensive assessments, the State Evaluation Committee determined:

- ES&S' Electionware election management system provides a more efficient and intuitive process for ballot layout and design, as well as import and export capabilities.
- ES&S has a tabulation solution for every Utah county, all of which reduce ballot processing time and provide an efficient process for adjudicating ballots.
- ES&S ExpressVote universal voting solution combines paper-based voting with touch-screen technology to meet the needs of voters with disabilities as well as provide a permanent paper record.
- ES&S's longevity, financial stability and reputation position it as the best option to support a roll-out of new equipment in multiple counties in Utah simultaneously, and provide support and maintenance plans at different levels of service and price points.

The Old Utah



Approximately 650
Direct-Recording Electronics
and Optical scanner units



Approximately 940
Direct-Recording Electronics
and Optical scanner units



Approximately 156
Direct-Recording Electronics
and Optical scanner units

ES&S SOLUTIONS

EASY EQUIPMENT SETUP

While nearly every registered voter in Utah receives a ballot by mail, registered voters may still vote in-person on or before Election Day. In Utah, accessible voting centers are available for voters with disabilities who need assistance completing their ballot and registered voters who prefer to cast their ballot in person during early voting and on Election Day.

Weber County Elections Director Ryan Cowley was impressed with the set-up process for their new ES&S equipment. "Way, way easy. The poll workers love the easy set up — remove the locks, verify the label and lift the lid. They can focus on making sure the polling place is organized, rather than rushing to get equipment set up. It's a huge time savings. Polling place set up is not a big deal anymore, it's so simple."

"The ES&S ExpressVotes are just so much easier to use. Before, we were spending hours and hours setting up the equipment on election morning," Summit County Clerk, Kent Jones said. "On Election Day, we use the ExpressVote as a ballot marker. Voters mark their selections, print their vote summary card and then those cards are tabulated together with the ballots that came in the mail. Everything's done centrally, so we handle and see everything."



The New Utah



- (18) Ballot on Demands
- (2) DS450s
- (14) DS200s
- (9) ExpressVotes



- (27) Ballot on Demands
- (2) DS450s
- (19) DS200s
- (25) ExpressVotes



- (1) DS450
- (18) ExpressVotes

FAST, SECURE BALLOT TABULATION

With the move to vote by mail, Utah officials needed to use the optical scan machines to process election results. Utah's old optical scanners, which were originally purchased to tabulate a small number of absentee ballots, required each ballot be hand fed into the machine.

"For the 2016 presidential election, Davis County mailed out 150,000 ballots and had a total vote turnout of 140,000. We ran all 140,000 ballots by hand through four older optical scanners, one at a time. It was very labor-intensive," Davis County Elections Manager Brian McKenzie said. "With the ES&S DS450 we can just put them in a stack and let them run."

With their old optical scanners, Davis County had four staff members counting ballots full time. With their new ES&S DS450, they have one-to-two team members who spend about a fourth of the time counting ballots.

McKenzie said, *"We can keep two of the DS450s running with one, one and a half people. As one person, I couldn't work as fast as the machines."*

IMPROVED POST-ELECTION AUDITING AND ADJUDICATION

When Utah counties started using DREs in the early 2000s, the state began requiring post-election audits. Typically, the process required a team of three people to audit each machine — one person to read the tape and two people to simultaneously record votes, making sure counts matched throughout. On average, the process took about two hours.

"I have to say that I could not be more pleased with how this (ES&S) system performed and counted the ballots. Being able to compare not only how the system originally counted a ballot, but also how the ballot was adjudicated, back to the digital image of the ballot itself is truly amazing. For the first time in my career, I feel like we have a transparent and auditable system," Cowley said.

"Compared to our previous system, thanks to auto adjudication we had far less to look at. We were inspecting every ballot before we ran it through the old optical scan machine. We didn't do any of that this time - we just ran them through," Jones said.

COMPREHENSIVE ONBOARDING AND TRAINING

Utah's onboarding process with ES&S was under a compressed timeline. ES&S onboarded 19 counties in 3-4 months.

"We changed everything except for voter registration — every piece of equipment that we used to process ballots was brand new. New accessible machines, new Ballot-on-Demand machines, new precinct tabulators, new central count tabulators, and new adjudication and audit process and procedures," Cowley said. "Receipt of the equipment and the training was all very timely. The ES&S team worked with about 50 people from 21 counties demonstrating each piece of equipment — leading detailed discussions about the equipment and how we saw it working for us. The team also helped with creating new policies and procedures. We received



"When we (Davis County) did our previous audits, we would only audit the races we were required to. With the new system we figured, the whole ballot is there, let's just look at everything," McKenzie said. "We did a full audit of the entire ballot, for all races. It was a more thorough audit, it covered all the races, and it only took two hours. We were just like, 'wow, it's so much better.'"



lot of support up front, and then we're able to take that and run with it."

McKenzie said, "Our experience from the beginning up to this point with ES&S has been phenomenal. Starting out, just getting to know the ES&S system went really well, and we were so impressed with the information ES&S could provide, coupled with the general feel of professionalism of the ES&S team. The organization and logistics when we were implementing the new system was really really good, the coordination of taking out the old equipment and bringing in the new equipment, the training, the people who came in and set us up and answered any questions we had, was great."

"Learning about the new equipment was probably the easiest transition it could have been. There wasn't a huge learning curve. ES&S simplified everything," Jones said. "We spent more time teaching the judges about the signature verification process than it took to learn the equipment."

CUSTOMER SERVICE EXCELLENCE

ES&S integrates good customer service into every aspect of our business. Our enthusiasm for the work we do and for our customers is unrivaled. ES&S' team of seasoned election professionals are empowered to think on their feet and work closely with our election administration partners to customize secure and innovative solutions to fit their needs.

Davis said, "The one thing that I would just sing praises to is the customer support – when we've had to call in with any type of question, whether it be concerning software or hardware support – the people on the other end of the line were phenomenal. I've personally experienced several instances where they have gone above and beyond. There was one time when I called in, it was near end of business day, and they gave me a solution. They made themselves available after their own hours to follow up and make sure we were able to implement the solution. All of them are so good at asking questions to make sure they fully understand the situation, and then they walk you through the process. Never have I felt like I was wasting their time and never are they frustrated. I can't say enough good things about the customer support. We've had really good experiences with everyone from ES&S. If someone has a bad experience with ES&S, you'd hear about it – and we don't."



"I'm going to brag about ES&S for a little bit," Weber County Elections Director Ryan Cowley said. "One of the things I think you guys always nail is customer support. With our previous vendors there was literally no support — things like trying to get parts and supplies, we just didn't get anything. The level of support we get from ES&S is a cultural thing — it's all about making sure you get the customer what they need. There is a much higher customer-service philosophy at ES&S."



Enhancing Elections in WILSON COUNTY

Upgrading voting technology can be a daunting task. The varied needs of election officials make it necessary for systems to multitask, now and in the future. For Wilson County, Tennessee, the ExpressVote and DS200 provided a viable, secure and flexible solution for this year's election cycle and beyond.

With a reputation for some of the best-run elections in Tennessee, the Wilson County Election Commission took the job of finding new voting technology quite seriously. An Election Systems & Software (ES&S) customer since 2006, their iVotronics were aging and a viable replacement would soon be needed. Realizing customer needs had changed, ES&S worked diligently to get the [ExpressVote](#)® Universal Voting System certified in the State of Tennessee, providing Wilson County with an enhanced voting solution. After extensive testing along with the [DS200](#)® precinct scanner, Wilson decided to extend their partnership with ES&S and purchase visionary voting solutions. During their August 4 Primary, which marked their first use of the ExpressVote and DS200, both poll workers and voters experienced a simplified Election Day while enjoying the extra security of verifiable paper records and streamlined polling place procedures.

CHALLENGES

- **Quick implementation.** Wilson County faced a quick turnaround period for implementation. Within eight weeks, poll workers were trained and equipment was delivered, tested and deployed for the August Primary.
- **No major adjustments for voters.** Wilson County wanted to ensure voters were able to exercise their right to vote without added complication or confusion during the Primary.
- **New Election Day/Night procedures.** New processes for opening and closing the polls were necessary and poll workers needed to be trained to enable the new voting solutions to work seamlessly on Election Day.

SOLUTIONS

- **Familiar interface + added security.** Wilson County voters were already familiar with touch screen voting. Their printed vote records allowed them a last minute review before casting their vote.
- **Streamlined poll place opening/closing.** The easy set-up requirements for both the ExpressVote and DS200 empowered many poll workers. Poll places were opened and ready for voters in less time without requiring troubleshooting calls to Election Central. Poll workers also enjoyed simple closing procedures and a single memory stick to keep track of.
- **Ease on Election Night.** Unofficial results were reported faster as less memory sticks were needed for uploads (one per precinct). Absentee and provisional ballot processing was also streamlined.
- **Platform for the future.** Phillip Warren, Administrator of Elections, remarked "We try to improve on the processes already in place. We try to be proactive and think ahead — everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote."
- **Setting the standard.** With their successful implementation during the August Primary, Wilson County hopes other jurisdictions take the step forward to enhance their elections with new technology.



Selecting a new system

During evaluation, Wilson County conducted 17 large school elections comparing the performance of the ExpressVote and DS200 configuration with the iVotronics. At one of the school elections in particular, 1700 votes were cast in less than 2 hours! Due diligence was important as the Elections Commission wanted to ensure they were wisely spending taxpayer funds on the best system available for Wilson County voter needs.

Ultimately, Wilson selected the ExpressVote and DS200. Finding the overall system attractive, Phillip and Tammy noted benefits such as:

- User friendliness
- Paper records adding clear voter intent
- Ease of mind having a paper back-up
- Attractive system from an administrative standpoint
- Flexibility for future needs

The County wanted to ensure voters and poll workers would quickly be able to utilize the new system during their August Primary. The familiar interface made this possible as voters were used to the look and feel of going up to a touch screen and inserting a card (think a trip to the ATM). Wilson simply swapped a debit card with an Activation Card.

Wilson County also appreciated the human component of ES&S. During the development of the ExpressVote, ES&S conducted focus groups that Wilson participated in where actual suggestions and needs that counties brought up were incorporated.

“What I liked about ES&S is that they listened. They took a lot of our ideas that we had in the small group and they implemented them and came back with a new product” Tammy Smith, Assistant Administrator, commented. “During a visit after that, we told them we were looking for products and couldn’t find them. The next time we saw them, they brought us a catalog!”

“Everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote.”

- Phillip Warren, Administrator of Elections

Changes for poll workers

Technology has been integrated with all systems, causing a shift in the demographics for poll workers. Outside of their partnerships with local high schools who provide student poll workers, many of the older poll workers are technologically savvy ones. Wilson County requires potential poll workers to go online and fill out their application, the first step towards showing tech literacy. With new skill sets required, it has opened the field to a wider and more capable pool of poll workers and decreased many of the minor tech support issues counties can face when workers aren’t familiar with updated systems. The county believes more people will now want to serve as poll workers thanks to the lighter equipment and easy opening and closing procedures.



In light of this, Wilson County makes sure that updated technology isn’t a barrier for those looking to serve yet not matching the required skill set level. “We try to configure our poll place system in a way that if they aren’t good with computers we can find a place for them if possible on Election Day” Tammy added.

For poll workers, the change was a welcome one that did not require major adjustment. As the system is intuitive, most found it easy to learn and had no worries on Election Day. Of the poll workers interviewed during the Primary, many echoed the county’s comparison of the system to a grocery store self check-out. “Tammy & Phillip do a good job. Every year our elections get tighter, from training to Election Day. It’s so organized people can almost go through the process on autopilot.”

One, who indicated she had a computer background, complimented the start to finish technology integrations. “Going from a more manual process of selecting ballot styles for people, this is much preferred. There’s no real error, you just print their barcode and they follow the instructions on screen from there.”

Signs directing voters through the voting process resemble stations you'd see at a back to school night. From the cheerful face who hands you your Activation Card with barcode, indicating your correct ballot style, to the gentlemen handing the mom and daughter an "I Voted" sticker after depositing their vote record into the DS200, Election Day in Wilson County is a stress-free affair.

"Nothing in the constitution says this has to be complicated" added Warren. "This system proves that because it's simple and it works."

Leading the charge

When asked one of the biggest take-aways from the implementation of their new system, Smith remarked "One thing I wish election offices were more open to is technology and change. We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

Upgraded technology means less time training poll workers and troubleshooting during an election. Many counties are tasked with doing innovative things with less money than they had 10 years ago, while also improving the experience for all who participate. Embracing technology, preparing for the future and planning for today can pay off in spades once implemented.

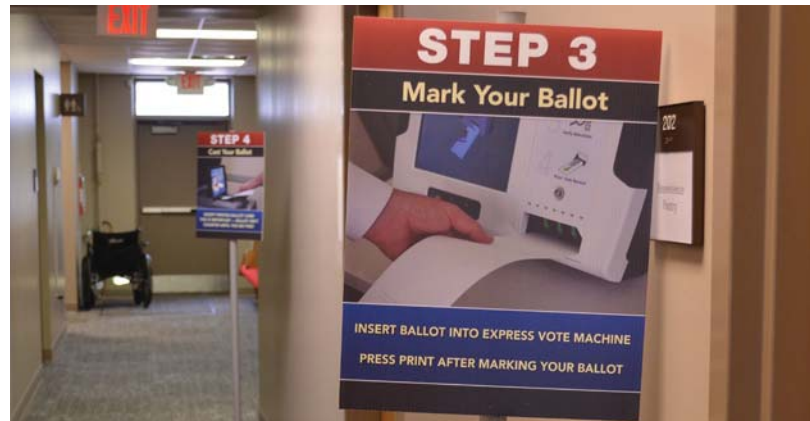
"We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

- Tammy Smith, Assistant Administrator

"We've been able to save weeks on the backend in closing out the election and auditing, while realizing thousands of dollars in cost savings from salaries."

Additionally, the technology benefits of the system extend for many past Election Day. "In the beginning, some poll workers didn't even know the computer basics or use it in their everyday life (no cell phones). Now a lot of them have their own tablet devices, all because they were introduced to more technology while serving as a poll worker" said Smith.

To learn more about our visionary voting suite which includes the ExpressVote and DS200 contact your ES&S representative or visit our [website](#).



Results

- 1 Smoother canvass and hand count
- 2 Reduced number of morning follow up calls
- 3 Success means that results are ready 2-3 hours sooner



Susan Thomas, Harrison County Clerk



“All you have to do is touch your selections, check your printed ballot and put it into the tabulator.”

Georgianna Thompson,
Taylor County Clerk

“Commissioners were not excited about spending the money. I was fully prepared to continue maintaining the old equipment. The ExpressVote convinced them that it will pay dividends in the future.”

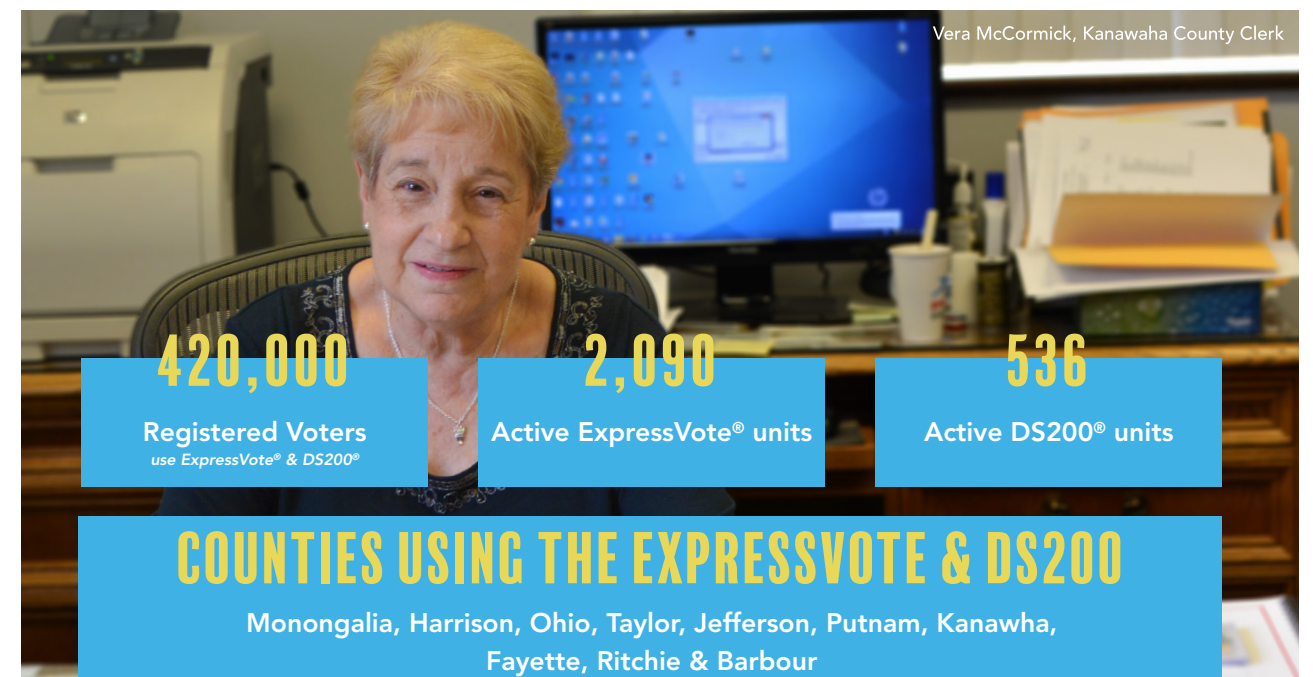
Brian Wood,
Putnam County Clerk

SEE FOR YOURSELF!
Call to request a demo!

HOW WEST VIRGINIA'S Election Officials Are Reducing Costs

While Improving the Election Experience for Voters & Poll Workers

Many voters across the U.S. are casting their ballots on a generation of aging, decade-plus old optical scan and direct-recording electronic (DRE) voting machines. Election officials nationwide rushed to embrace new voting technology after Congress passed the Help America Vote Act (HAVA) in 2002, which addressed the way ballots were designed, cast and counted, and led to an overhaul of the U.S. election system and eventually the birth of the DRE and optical scan machines. **Ten plus years later another major overhaul of the U.S. election system is underway, and a number of states are seriously considering a return to paper-based voting systems.**



*stats are current as of October 2017

As with many states in the early 2000s, West Virginia faced various challenges related to becoming compliant with HAVA. At the close of the 2005 West Virginia Legislative regular session, during which a voter-verified paper trail bill was signed into law, Secretary of State Betty Ireland began her search for a pioneering elections partner that could help West Virginia do three things: 1) meet the requirements of HAVA, 2) reduce the financial burden of becoming compliant off the counties as much as possible, and 3) offer counties quality voting system options.

In August 2005, ES&S was awarded the statewide contract to provide all of West Virginia’s counties with voting systems and election services. And in 2006, just over half of West Virginia’s 55 counties, whose County Clerks manage elections at the local level, purchased DRE systems while the remaining chose to purchase optical scan voting systems paired with central scanners, creating a dual system environment across the state.

Why the change?

Fast forward ten more years, similar to many states across the U.S., while their existing voting systems were withstanding the test of time, West Virginia’s jurisdictions began the process to find a more modern system that offered a paper-verifiable record.



Brian Wood, Putnam County Clerk

“Our equipment was aging. Having partnered with ES&S for ten plus years, we knew they were always developing solutions that made our lives easier and were more efficient, dependable and cost-effective.”


“The ExpressVote® was the best of both worlds with the electronic aspect, including improved visibility and ADA compliance, along with the paper verification where the voter can hold their selections in their hands, confirm everything is accurate, and then place it in the DS200® ballot slot.”


They were also ready to put away the challenges associated with their aging equipment and find a solution that simplified election management and improved voters’ experience at the polls. Much like the avid flip-phone users, whose carriers still supported their phones, and whose flip-phones still made calls — they ultimately realized how much easier and more efficient their life could be if they had a smartphone.

“So much less to worry about and less upkeep. We no longer have to deal with all of the different consumables,” said Susan Thomas, Harrison County Clerk. “You plug them in, flip a switch, lift a screen and both are powered up within five minutes. Plus, with ExpressVote and DS200 everything is a lot simpler for us on the backend.”

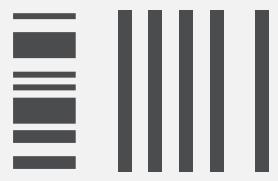
It was important to them that their new equipment made the backend of their elections easier for not only themselves and their teams, but the poll workers as well. Equipment that wasn’t hard to haul around, was easier to program and would ease the burden of having to hand count write-in and canvass ballots.

“The ballots marked on the ExpressVote require less storage due to their size, and the leftover blank cardstock can be reused in other elections. We can do satellite voting now, and don’t have to carry all of those preprinted ballots with us.”





Vera McCormick,
Kanawha County Clerk



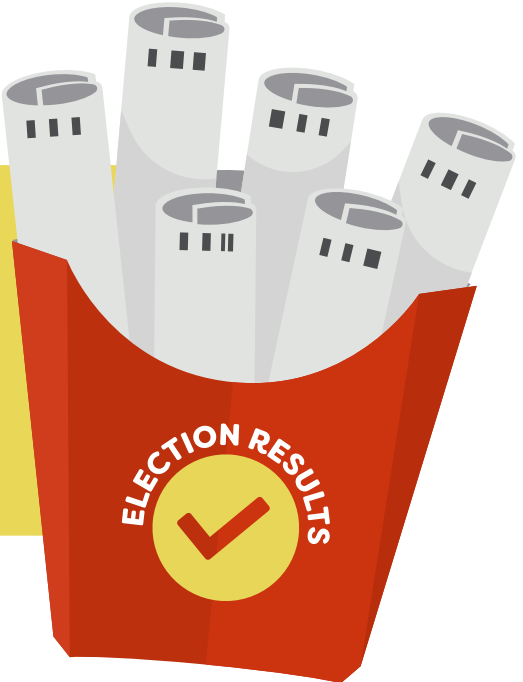
“Canvass and hand count went very smoothly; the ballot was easy to read and easy to determine the voter’s intent. NO OVERVOTES!”

The clerks wanted a truly usable summary report of the final results, a more robust in-depth audit report. They wanted to deliver their county’s election results before 3 a.m. so the candidates and the people who had worked so hard supporting them could either get their parties started or start picking up campaign signs.

“We live in a fast food world, and people want their results right away”

“The candidates and their supporters have worked for a long time to get there, so they are very anxious to get the results. So is the media ... it’s nice to give them what they need, and get them back to work by 10 p.m. instead of 3 a.m.”

Brian Wood, Putnam County Clerk



Most importantly, they wanted every one of their voters to have a consistent, simple and secure election experience. This included having only one system to vote on, that was easy to use and that included a verifiable paper record that allowed them to confirm that the selections they marked were what they intended.

“We demo’ed the equipment in several different locations with seniors, many of which who were in their 90s. We didn’t really have to explain much to them as far as how to use it, and everyone liked it,” said McCormick. “They liked having a piece of paper in their hand that they could hold, so there was no guessing.”

Clarifying Information:

All election media required for the ExpressVote, DS200 and DS450/DS850 is programmed from one (1) election database in the Electionware Election Management System. The same election database used to create ballots for all local and statewide races is used to configure the equipment, reducing data entry and ensuring consistency throughout. Once the equipment configurations have been set up, the election definition is burned for use on all machines, including the central scanners.

#5.2

Questions:

Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.

Clarification Questions:

- A. *Does the capability exist to validate the software/firmware on the BMD using hash validation?*
B. *If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:*
- *Initial Acceptance Testing,*
 - *County Warehouse Pre-Election,*
 - *Polling Place Setup, and*
 - *Post Election review (saved as archived documentation).*

CLARIFICATION RESPONSE:

Original Response:

ES&S provides documentation included in the Technical Documentation Package (TDP) that details the process for customers to perform a Hash Code Validation. All proposed equipment is capable of automatically producing a Hash Code to be compared to the Hash Code supplied by certification authorities. A hash check can be run by the jurisdiction at any time to ensure that the firmware and operating system code on the equipment and software is identical to the hash code approved by certification authorities. Successfully completing this validation on all equipment and software provides confidence that the firmware and software exactly matches the files in the certified source code.

Additionally, Logic and accuracy (L&A) testing is performed well before the election to verify that the election definition generated for each voting device matches the election being held, and that all contests and candidates are accurately reflected on each ballot style and on reports. L&A testing verifies that all voting positions can be voted, and whether each contest can be voted for the maximum number of eligible candidates.

Pre-election L&A testing involves setting up the voting system for each voting location in the election, loading the election definition, opening the election, casting a known pattern of votes on each ballot (or card) style, closing the election, printing the vote totals then comparing the printed vote totals with the known pattern of votes.

After using the ExpressVote to generate printed vote summary cards that match the voting pattern for testing, election officials will use the DS200 to tabulate those cards and verify that the voting results match the expected results for the test voting pattern.

- ✔ Access controls. The operating software provides security access controls to limit or detect access to critical system components and to guard against loss of system integrity, availability, confidentiality, and accountability. If any files have changed, the system will alert the user and will not continue until the issue is resolved.
- ✔ System function protection. System functions are only executable in the manner and order intended, and only under the intended conditions.
- ✔ Control logic. Control logic prevents ballot marking if any preconditions to this function have not been met.
- ✔ Tamper protection. Hardware is designed to protect against tampering during system repair, or interventions in system operations in response to system failure. The USB compartment is key-locked and has a place for the County to add a tamper-evident seal. All data is protected with a secure hash code. All ports, doors, openings and data access points are protected by lockable, sealable clear plastic doors to protect access and allow election officials to easily detect unauthorized access.
- ✔ System access limited. System access during equipment preparation, testing, and operation is limited by access code.
- ✔ Security safeguard protection. Security safeguards cannot be bypassed or deactivated during system installation or operation by the user.
- ✔ Logs. The ExpressVote has an audit log. The log keeps track of all voter operations, tracks issues, and any unit hardware failures. The logs are accessed and can be printed through Electionware.

Officials should retain all paper ballots and election results USB memory devices to ensure system security and provide audit trail for forensic investigation.

Clarifying Information: CONFIDENTIAL

[REDACTED]

[REDACTED]

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[REDACTED]

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#5.4

Questions:

Ease of Use for Local Election Officials and Voters: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.

Clarification Questions:

How will the proposed BMD assist Local Election Officials counties in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?

CLARIFICATION RESPONSE:

Original Response:

Please see the included case studies.

EXPRESSVOTE GETS PUT TO THE TEST

Blindbargains.com Tested Three Modern Voting Machines for Accessibility

Recently the Michigan Bureau of Elections held a Mock Election, allowing testers and poll workers to use voting systems from three different vendors, including our ExpressVote, designed for both voters with disabilities and voters without. One of the testers, J.J. Meddaugh with Blindbargains.com tested all the offerings, concluding that the ExpressVote was the best choice of the group being the only one he would recommend in its current form. For more details about each voting system Mr. Meddaugh experienced read a summary of his article below.

Dominion ImageCast Democracy Suite

The voting system from Dominion included an accessible keypad, touchscreen and a printer for paper ballots. Initial set-up of the machine required the use of a digital programming card which included information to load and verify the ballot. While I was able to insert the card, several set-up steps needed to be performed by a poll worker. Among these were choice of language, and the screen privacy guard option, which allows a voter to turn off the visual screen output. It's worth noting that this is the only machine which does not allow the voter to change this setting after initial set-up.

Once speech was finally available, I was presented with initial instructions read by Google's Android text-to-speech voice and an options menu which allowed me to change volume, speech rate and visual display options. Unfortunately, the maximum volume was not loud enough for a noisy room, and the fastest speech rate was less than what is available on Android and too slow for an advanced speech user.

The keypad features buttons in various shapes which can be readily identified. Left and right arrows are on the left side while up and down arrows are on the right. There is a large X in the center which is used for selection. Dedicated buttons to adjust the volume and speech rate are found near the top. All buttons have braille labels near them, though the layout of the keys often made the placement of the braille labels confusing. The design choice to place the two sets of arrows far away from each other is perplexing at best.

The machine was plagued by user interface issues, often requiring the voter to press several key presses to accomplish a simple task. For example, when reviewing a ballot, if the user wanted to change a vote from NO to Yes, no less than 9 key presses were required to accomplish this task. In addition, the function of the right and down arrows are duplicated, as well as the up and left arrows. I was told this was done because of the needs of low vision users, but it made the navigation of the ballot needlessly time-consuming and complicated. Often, help and tutorial messages were spoken before important content, such as when speaking the name of an entered write-in candidate.

Another issue arose when speaking the names of the candidates and ballot proposal language. This information was spoken using the Cepstral text-to-speech engine, with the recordings in a much lower quality and volume than the rest of the speech feedback. Using the same text-to-speech voice throughout the system would be ideal. Care also needs to be taken when speaking the titles of ballot proposals and other items. The word millage, a common election term, was mispronounced.

Help information was given throughout the process, and presented in the manner of screen reader hints. Speech could be easily interrupted if the user chose to not listen to the help information.

While I was able to complete and print my ballot, I'm hard-pressed to recommend this system in its current form. That being said, many of the issues identified are software-based and could be fixed using a firmware update.

Hart InterCivic Verity Touch Writer

Hart InterCivic calls their Verity system “The Future of Elections”. To be completely blunt, if this is the case, I’m worried for the state of accessible voting equipment.

Set-up involved the poll worker entering in a code to load the appropriate ballot using the touch-screen. This process did not include speech feedback and was not accessible. Once the ballot was loaded, pre recorded instructions in a male voice were spoken through the headset.

The accessible keypad includes two buttons (Select and Help), and a dial called the Move Wheel which can be turned using the thumb. The dial emulates arrow keys and allows the user to go through menus while the Select button locks in the current choice. The use of only three controls was an intentional design choice, but it quickly became limiting when attempting to efficiently navigate the screen.

The initial screen included a menu to adjust audio settings including volume and speech rate. To adjust the volume, one must select the raise or lower options and then press select for the new volume level to take effect. This is the only machine of the

three tested which did not include dedicated volume and speed controls, which presents a hassle if one wants to make adjustments during the voting process. Only three speech rates were available, with the fastest option still quite slow for advanced users. In addition, since human speech is used throughout the process, the faster speech level resulted in choppiness and audio artifacts which made it more difficult to understand the recorded prompts.

I did not complete my ballot with this machine because of one major reason...HORRENDOUS LAG. Users of electronic devices may often become frustrated when it takes a quarter second or more to hear audio feedback after pressing a button. When using the Move dial on the Verity, it often took 3 or 4 seconds for any feedback to be given after the dial was turned. In addition, after pressing the Help button, it was often difficult or impossible to interrupt the instructional message and return to the previous screen.

After spending about 10 minutes with the machine and still working on my first ballot selection of 23 contests, my frustration level reached a point where I had completely lost interest in completing my ballot.

ES&S ExpressVote

With my faith in modern voting technology quickly running out, I moved to the last of the machines, The ExpressVote from Election Systems & Software. ES&S purchased the assets of the former AutoMARK system, and the design of this model takes many cues from the previous version, which is a good thing.

I walked up to the machine and inserted my paper ballot into the reader, which immediately caused speech feedback to begin. No intervention was necessary from the election workers.

The keypad includes a rocker button for Volume labeled VOL in braille and another for voice speed labeled TPO for tempo. To the left of this is a five-way navigation pad with a select button in the center. A button to turn on and off screen input can be found near

the top. Beeps are heard when buttons are pressed, and speech feedback is given within a quarter second. A more modern male voice is used on this model, as opposed to Eloquence speech on the AutoMARK, but it was clear and easily understood.

For those familiar with the AutoMARK, the voting process was nearly identical. Up and down arrows are used to move through ballot choices, and right and left arrows move between contests. For new users, contextual help information is given as hints. Warnings are given if a ballot question is skipped without the appropriate number of votes or if a user attempts to vote for too many candidates in a contest. Overall, I completed my 23-question ballot in about 5 minutes.

CONCLUSION

Of the three systems tested , the ExpressVote is the only one I am comfortable recommending in its current form. Set-up was achieved independently by the voter, prompts were spoken efficiently, and a ballot could be completed using the fewest number of key presses.

UTAH INCREASES VOTER CONFIDENCE

through verifiable ballots and better audits

In the early 2000s, election officials across the country purchased new voting systems thanks to the Help America Vote Act (HAVA). At that time, the State of Utah chose to use their HAVA grant dollars to purchase optical scanners and direct-recording electronic (DRE) voting machines.

Fast forward to over a decade later: vote by mail has become the norm for most counties across Utah. In fact, the majority of registered voters in the state automatically receive a ballot in the mail. While the machines were standing the test of time, the increased popularity of vote by mail was starting to put a lot of pressure on the decade-plus old system that was originally designed for in-precinct voting.

In addition to managing aging voting systems and changes in voting trends, election officials in Utah were facing higher expectations for security and reliability.

The expectation being all voting machines should have the ability to audit and verify that a voter's ballot was recorded and tabulated in accordance with the voter's intent.

In the fall of 2017, the State of Utah designated Election Systems & Software (ES&S) as the state's election management provider of choice. After their extensive assessment of five different election systems providers, the State's evaluation committee determined that ES&S would provide the best value to the State.

"Through a careful and thorough procurement process, the state of Utah has chosen ES&S to lead Utah into the next generation of voting equipment. ES&S offers a wide range of voting equipment options, and I'm confident their secure and innovative election solutions will fit the needs of each county," Utah State Lieutenant Governor, Spencer J. Cox said (October 2017)

Through their extensive assessments, the State Evaluation Committee determined:

- ES&S' Electionware election management system provides a more efficient and intuitive process for ballot layout and design, as well as import and export capabilities.
- ES&S has a tabulation solution for every Utah county, all of which reduce ballot processing time and provide an efficient process for adjudicating ballots.
- ES&S ExpressVote universal voting solution combines paper-based voting with touch-screen technology to meet the needs of voters with disabilities as well as provide a permanent paper record.
- ES&S's longevity, financial stability and reputation position it as the best option to support a roll-out of new equipment in multiple counties in Utah simultaneously, and provide support and maintenance plans at different levels of service and price points.

The Old Utah



Approximately 650
Direct-Recording Electronics
and Optical scanner units



Approximately 940
Direct-Recording Electronics
and Optical scanner units



Approximately 156
Direct-Recording Electronics
and Optical scanner units

ES&S SOLUTIONS

EASY EQUIPMENT SETUP

While nearly every registered voter in Utah receives a ballot by mail, registered voters may still vote in-person on or before Election Day. In Utah, accessible voting centers are available for voters with disabilities who need assistance completing their ballot and registered voters who prefer to cast their ballot in person during early voting and on Election Day.

Weber County Elections Director Ryan Cowley was impressed with the set-up process for their new ES&S equipment. "Way, way easy. The poll workers love the easy set up — remove the locks, verify the label and lift the lid. They can focus on making sure the polling place is organized, rather than rushing to get equipment set up. It's a huge time savings. Polling place set up is not a big deal anymore, it's so simple."

"The ES&S ExpressVotes are just so much easier to use. Before, we were spending hours and hours setting up the equipment on election morning," Summit County Clerk, Kent Jones said. "On Election Day, we use the ExpressVote as a ballot marker. Voters mark their selections, print their vote summary card and then those cards are tabulated together with the ballots that came in the mail. Everything's done centrally, so we handle and see everything."



The New Utah



- (18) Ballot on Demands
- (2) DS450s
- (14) DS200s
- (9) ExpressVotes



- (27) Ballot on Demands
- (2) DS450s
- (19) DS200s
- (25) ExpressVotes



- (1) DS450
- (18) ExpressVotes

FAST, SECURE BALLOT TABULATION

With the move to vote by mail, Utah officials needed to use the optical scan machines to process election results. Utah's old optical scanners, which were originally purchased to tabulate a small number of absentee ballots, required each ballot be hand fed into the machine.

"For the 2016 presidential election, Davis County mailed out 150,000 ballots and had a total vote turnout of 140,000. We ran all 140,000 ballots by hand through four older optical scanners, one at a time. It was very labor-intensive," Davis County Elections Manager Brian McKenzie said. "With the ES&S DS450 we can just put them in a stack and let them run."

With their old optical scanners, Davis County had four staff members counting ballots full time. With their new ES&S DS450, they have one-to-two team members who spend about a fourth of the time counting ballots.

McKenzie said, *"We can keep two of the DS450s running with one, one and a half people. As one person, I couldn't work as fast as the machines."*

IMPROVED POST-ELECTION AUDITING AND ADJUDICATION

When Utah counties started using DREs in the early 2000s, the state began requiring post-election audits. Typically, the process required a team of three people to audit each machine — one person to read the tape and two people to simultaneously record votes, making sure counts matched throughout. On average, the process took about two hours.

"I have to say that I could not be more pleased with how this (ES&S) system performed and counted the ballots. Being able to compare not only how the system originally counted a ballot, but also how the ballot was adjudicated, back to the digital image of the ballot itself is truly amazing. For the first time in my career, I feel like we have a transparent and auditable system," Cowley said.

"Compared to our previous system, thanks to auto adjudication we had far less to look at. We were inspecting every ballot before we ran it through the old optical scan machine. We didn't do any of that this time - we just ran them through," Jones said.

COMPREHENSIVE ONBOARDING AND TRAINING

Utah's onboarding process with ES&S was under a compressed timeline. ES&S onboarded 19 counties in 3-4 months.

"We changed everything except for voter registration — every piece of equipment that we used to process ballots was brand new. New accessible machines, new Ballot-on-Demand machines, new precinct tabulators, new central count tabulators, and new adjudication and audit process and procedures," Cowley said. "Receipt of the equipment and the training was all very timely. The ES&S team worked with about 50 people from 21 counties demonstrating each piece of equipment — leading detailed discussions about the equipment and how we saw it working for us. The team also helped with creating new policies and procedures. We received



"When we (Davis County) did our previous audits, we would only audit the races we were required to. With the new system we figured, the whole ballot is there, let's just look at everything," McKenzie said. "We did a full audit of the entire ballot, for all races. It was a more thorough audit, it covered all the races, and it only took two hours. We were just like, 'wow, it's so much better.'"



lot of support up front, and then we're able to take that and run with it."

McKenzie said, "Our experience from the beginning up to this point with ES&S has been phenomenal. Starting out, just getting to know the ES&S system went really well, and we were so impressed with the information ES&S could provide, coupled with the general feel of professionalism of the ES&S team. The organization and logistics when we were implementing the new system was really really good, the coordination of taking out the old equipment and bringing in the new equipment, the training, the people who came in and set us up and answered any questions we had, was great."

"Learning about the new equipment was probably the easiest transition it could have been. There wasn't a huge learning curve. ES&S simplified everything," Jones said. "We spent more time teaching the judges about the signature verification process than it took to learn the equipment."

CUSTOMER SERVICE EXCELLENCE

ES&S integrates good customer service into every aspect of our business. Our enthusiasm for the work we do and for our customers is unrivaled. ES&S' team of seasoned election professionals are empowered to think on their feet and work closely with our election administration partners to customize secure and innovative solutions to fit their needs.

Davis said, "The one thing that I would just sing praises to is the customer support – when we've had to call in with any type of question, whether it be concerning software or hardware support – the people on the other end of the line were phenomenal. I've personally experienced several instances where they have gone above and beyond. There was one time when I called in, it was near end of business day, and they gave me a solution. They made themselves available after their own hours to follow up and make sure we were able to implement the solution. All of them are so good at asking questions to make sure they fully understand the situation, and then they walk you through the process. Never have I felt like I was wasting their time and never are they frustrated. I can't say enough good things about the customer support. We've had really good experiences with everyone from ES&S. If someone has a bad experience with ES&S, you'd hear about it – and we don't."



"I'm going to brag about ES&S for a little bit," Weber County Elections Director Ryan Cowley said. "One of the things I think you guys always nail is customer support. With our previous vendors there was literally no support — things like trying to get parts and supplies, we just didn't get anything. The level of support we get from ES&S is a cultural thing — it's all about making sure you get the customer what they need. There is a much higher customer-service philosophy at ES&S."



Enhancing Elections in WILSON COUNTY

Upgrading voting technology can be a daunting task. The varied needs of election officials make it necessary for systems to multitask, now and in the future. For Wilson County, Tennessee, the ExpressVote and DS200 provided a viable, secure and flexible solution for this year's election cycle and beyond.

With a reputation for some of the best-run elections in Tennessee, the Wilson County Election Commission took the job of finding new voting technology quite seriously. An Election Systems & Software (ES&S) customer since 2006, their iVotronics were aging and a viable replacement would soon be needed. Realizing customer needs had changed, ES&S worked diligently to get the [ExpressVote](#)® Universal Voting System certified in the State of Tennessee, providing Wilson County with an enhanced voting solution. After extensive testing along with the [DS200](#)® precinct scanner, Wilson decided to extend their partnership with ES&S and purchase visionary voting solutions. During their August 4 Primary, which marked their first use of the ExpressVote and DS200, both poll workers and voters experienced a simplified Election Day while enjoying the extra security of verifiable paper records and streamlined polling place procedures.

CHALLENGES

- **Quick implementation.** Wilson County faced a quick turnaround period for implementation. Within eight weeks, poll workers were trained and equipment was delivered, tested and deployed for the August Primary.
- **No major adjustments for voters.** Wilson County wanted to ensure voters were able to exercise their right to vote without added complication or confusion during the Primary.
- **New Election Day/Night procedures.** New processes for opening and closing the polls were necessary and poll workers needed to be trained to enable the new voting solutions to work seamlessly on Election Day.

SOLUTIONS

- **Familiar interface + added security.** Wilson County voters were already familiar with touch screen voting. Their printed vote records allowed them a last minute review before casting their vote.
- **Streamlined poll place opening/closing.** The easy set-up requirements for both the ExpressVote and DS200 empowered many poll workers. Poll places were opened and ready for voters in less time without requiring troubleshooting calls to Election Central. Poll workers also enjoyed simple closing procedures and a single memory stick to keep track of.
- **Ease on Election Night.** Unofficial results were reported faster as less memory sticks were needed for uploads (one per precinct). Absentee and provisional ballot processing was also streamlined.
- **Platform for the future.** Phillip Warren, Administrator of Elections, remarked "We try to improve on the processes already in place. We try to be proactive and think ahead — everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote."
- **Setting the standard.** With their successful implementation during the August Primary, Wilson County hopes other jurisdictions take the step forward to enhance their elections with new technology.



Selecting a new system

During evaluation, Wilson County conducted 17 large school elections comparing the performance of the ExpressVote and DS200 configuration with the iVotronics. At one of the school elections in particular, 1700 votes were cast in less than 2 hours! Due diligence was important as the Elections Commission wanted to ensure they were wisely spending taxpayer funds on the best system available for Wilson County voter needs.

Ultimately, Wilson selected the ExpressVote and DS200. Finding the overall system attractive, Phillip and Tammy noted benefits such as:

- User friendliness
- Paper records adding clear voter intent
- Ease of mind having a paper back-up
- Attractive system from an administrative standpoint
- Flexibility for future needs

The County wanted to ensure voters and poll workers would quickly be able to utilize the new system during their August Primary. The familiar interface made this possible as voters were used to the look and feel of going up to a touch screen and inserting a card (think a trip to the ATM). Wilson simply swapped a debit card with an Activation Card.

Wilson County also appreciated the human component of ES&S. During the development of the ExpressVote, ES&S conducted focus groups that Wilson participated in where actual suggestions and needs that counties brought up were incorporated.

“What I liked about ES&S is that they listened. They took a lot of our ideas that we had in the small group and they implemented them and came back with a new product” Tammy Smith, Assistant Administrator, commented. “During a visit after that, we told them we were looking for products and couldn’t find them. The next time we saw them, they brought us a catalog!”

“Everything we offer is meant to meet a lot of needs or alleviate voter concerns because we want to preserve the integrity of the vote.”

- Phillip Warren, Administrator of Elections

Changes for poll workers

Technology has been integrated with all systems, causing a shift in the demographics for poll workers. Outside of their partnerships with local high schools who provide student poll workers, many of the older poll workers are technologically savvy ones. Wilson County requires potential poll workers to go online and fill out their application, the first step towards showing tech literacy. With new skill sets required, it has opened the field to a wider and more capable pool of poll workers and decreased many of the minor tech support issues counties can face when workers aren’t familiar with updated systems. The county believes more people will now want to serve as poll workers thanks to the lighter equipment and easy opening and closing procedures.



In light of this, Wilson County makes sure that updated technology isn’t a barrier for those looking to serve yet not matching the required skill set level. “We try to configure our poll place system in a way that if they aren’t good with computers we can find a place for them if possible on Election Day” Tammy added.

For poll workers, the change was a welcome one that did not require major adjustment. As the system is intuitive, most found it easy to learn and had no worries on Election Day. Of the poll workers interviewed during the Primary, many echoed the county’s comparison of the system to a grocery store self check-out. “Tammy & Phillip do a good job. Every year our elections get tighter, from training to Election Day. It’s so organized people can almost go through the process on autopilot.”

One, who indicated she had a computer background, complimented the start to finish technology integrations. “Going from a more manual process of selecting ballot styles for people, this is much preferred. There’s no real error, you just print their barcode and they follow the instructions on screen from there.”

Signs directing voters through the voting process resemble stations you'd see at a back to school night. From the cheerful face who hands you your Activation Card with barcode, indicating your correct ballot style, to the gentlemen handing the mom and daughter an "I Voted" sticker after depositing their vote record into the DS200, Election Day in Wilson County is a stress-free affair.

"Nothing in the constitution says this has to be complicated" added Warren. "This system proves that because it's simple and it works."

Leading the charge

When asked one of the biggest take-aways from the implementation of their new system, Smith remarked "One thing I wish election offices were more open to is technology and change. We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

Upgraded technology means less time training poll workers and troubleshooting during an election. Many counties are tasked with doing innovative things with less money than they had 10 years ago, while also improving the experience for all who participate. Embracing technology, preparing for the future and planning for today can pay off in spades once implemented.

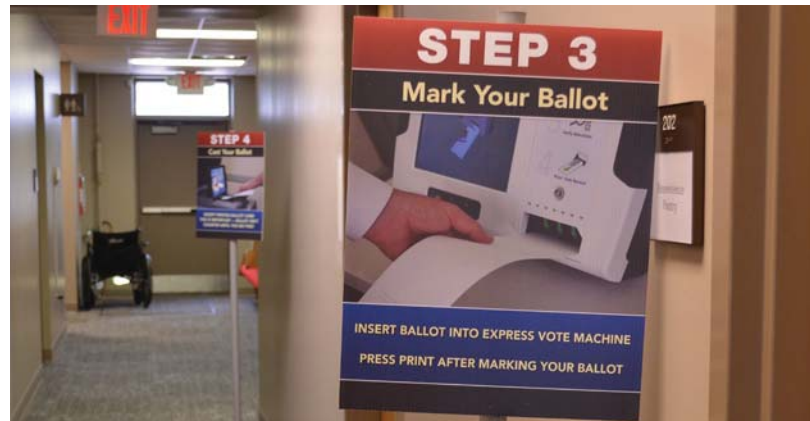
"We believe if you expect a lot out of your poll workers they can do it. Sometimes we don't challenge them enough."

- Tammy Smith, Assistant Administrator

"We've been able to save weeks on the backend in closing out the election and auditing, while realizing thousands of dollars in cost savings from salaries."

Additionally, the technology benefits of the system extend for many past Election Day. "In the beginning, some poll workers didn't even know the computer basics or use it in their everyday life (no cell phones). Now a lot of them have their own tablet devices, all because they were introduced to more technology while serving as a poll worker" said Smith.

To learn more about our visionary voting suite which includes the ExpressVote and DS200 contact your ES&S representative or visit our [website](#).



Results

- 1 Smoother canvass and hand count
- 2 Reduced number of morning follow up calls
- 3 Success means that results are ready 2-3 hours sooner



Susan Thomas, Harrison County Clerk



“All you have to do is touch your selections, check your printed ballot and put it into the tabulator.”

“**Georgianna Thompson,**
Taylor County Clerk

“Commissioners were not excited about spending the money. I was fully prepared to continue maintaining the old equipment. The ExpressVote convinced them that it will pay dividends in the future.”

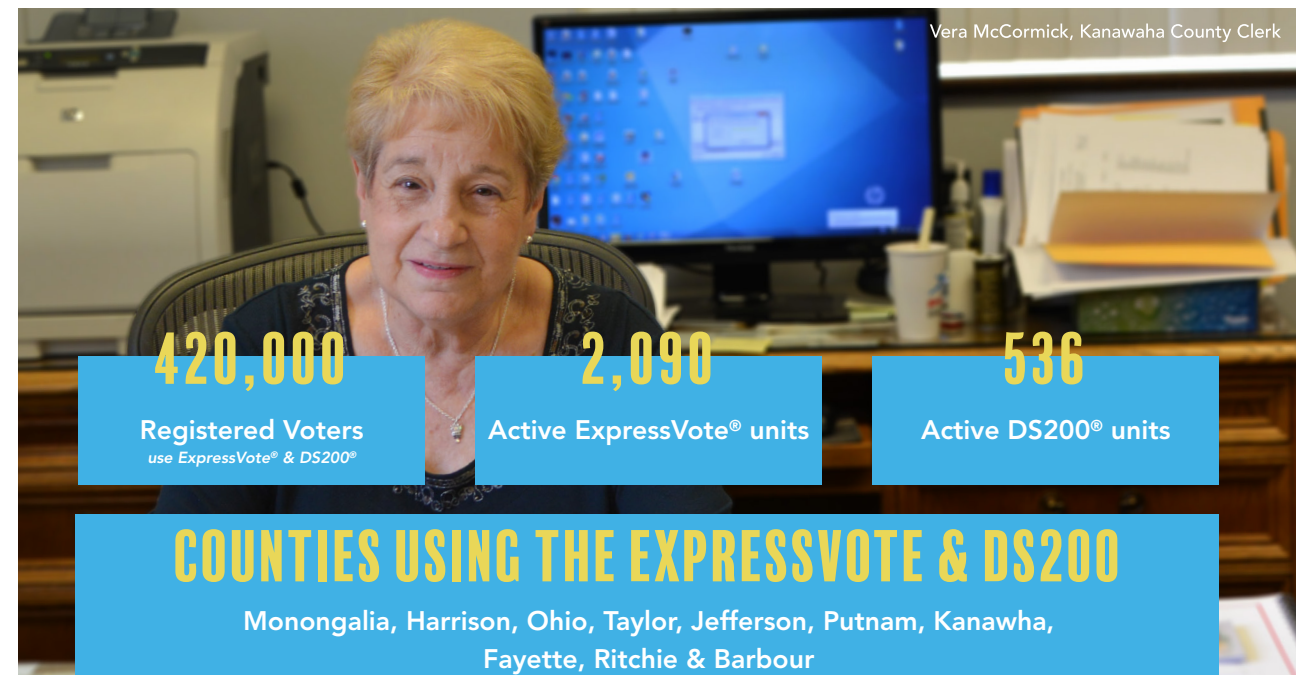
“**Brian Wood,**
Putnam County Clerk

SEE FOR YOURSELF!
Call to request a demo!

HOW WEST VIRGINIA'S Election Officials Are Reducing Costs

While Improving the Election Experience for Voters & Poll Workers

Many voters across the U.S. are casting their ballots on a generation of aging, decade-plus old optical scan and direct-recording electronic (DRE) voting machines. Election officials nationwide rushed to embrace new voting technology after Congress passed the Help America Vote Act (HAVA) in 2002, which addressed the way ballots were designed, cast and counted, and led to an overhaul of the U.S. election system and eventually the birth of the DRE and optical scan machines. **Ten plus years later another major overhaul of the U.S. election system is underway, and a number of states are seriously considering a return to paper-based voting systems.**



*stats are current as of October 2017

As with many states in the early 2000s, West Virginia faced various challenges related to becoming compliant with HAVA. At the close of the 2005 West Virginia Legislative regular session, during which a voter-verified paper trail bill was signed into law, Secretary of State Betty Ireland began her search for a pioneering elections partner that could help West Virginia do three things: 1) meet the requirements of HAVA, 2) reduce the financial burden of becoming compliant off the counties as much as possible, and 3) offer counties quality voting system options.

In August 2005, ES&S was awarded the statewide contract to provide all of West Virginia’s counties with voting systems and election services. And in 2006, just over half of West Virginia’s 55 counties, whose County Clerks manage elections at the local level, purchased DRE systems while the remaining chose to purchase optical scan voting systems paired with central scanners, creating a dual system environment across the state.

Why the change?

Fast forward ten more years, similar to many states across the U.S., while their existing voting systems were withstanding the test of time, West Virginia’s jurisdictions began the process to find a more modern system that offered a paper-verifiable record.



Brian Wood, Putnam County Clerk

“Our equipment was aging. Having partnered with ES&S for ten plus years, we knew they were always developing solutions that made our lives easier and were more efficient, dependable and cost-effective.”


“The ExpressVote® was the best of both worlds with the electronic aspect, including improved visibility and ADA compliance, along with the paper verification where the voter can hold their selections in their hands, confirm everything is accurate, and then place it in the DS200® ballot slot.”


They were also ready to put away the challenges associated with their aging equipment and find a solution that simplified election management and improved voters’ experience at the polls. Much like the avid flip-phone users, whose carriers still supported their phones, and whose flip-phones still made calls — they ultimately realized how much easier and more efficient their life could be if they had a smartphone.

“So much less to worry about and less upkeep. We no longer have to deal with all of the different consumables,” said Susan Thomas, Harrison County Clerk. “You plug them in, flip a switch, lift a screen and both are powered up within five minutes. Plus, with ExpressVote and DS200 everything is a lot simpler for us on the backend.”


It was important to them that their new equipment made the backend of their elections easier for not only themselves and their teams, but the poll workers as well. Equipment that wasn’t hard to haul around, was easier to program and would ease the burden of having to hand count write-in and canvass ballots.

“The ballots marked on the ExpressVote require less storage due to their size, and the leftover blank cardstock can be reused in other elections. We can do satellite voting now, and don’t have to carry all of those preprinted ballots with us.”





Vera McCormick,
Kanawha County Clerk



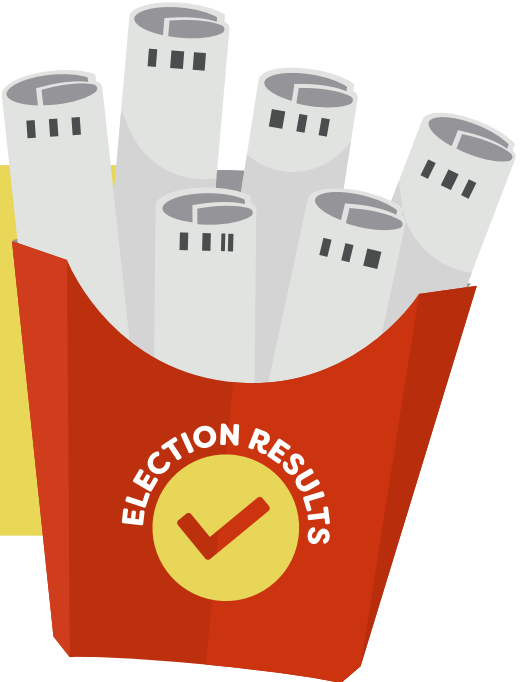
“Canvass and hand count went very smoothly; the ballot was easy to read and easy to determine the voter’s intent. NO OVERVOTES!”

The clerks wanted a truly usable summary report of the final results, a more robust in-depth audit report. They wanted to deliver their county’s election results before 3 a.m. so the candidates and the people who had worked so hard supporting them could either get their parties started or start picking up campaign signs.

“We live in a fast food world, and people want their results right away”

“The candidates and their supporters have worked for a long time to get there, so they are very anxious to get the results. So is the media ... it’s nice to give them what they need, and get them back to work by 10 p.m. instead of 3 a.m.”

Brian Wood, Putnam County Clerk



Most importantly, they wanted every one of their voters to have a consistent, simple and secure election experience. This included having only one system to vote on, that was easy to use and that included a verifiable paper record that allowed them to confirm that the selections they marked were what they intended.

“We demo’ed the equipment in several different locations with seniors, many of which who were in their 90s. We didn’t really have to explain much to them as far as how to use it, and everyone liked it,” said McCormick. “They liked having a piece of paper in their hand that they could hold, so there was no guessing.”

Clarifying Information:

All election media required for the ExpressVote, DS200 and DS450/DS850 is programmed from one (1) election database in the Electionware Election Management System. The same election database used to create ballots for all local and statewide races is used to configure the equipment, reducing data entry and ensuring consistency throughout. Once the equipment configurations have been set up, the election definition is burned for use on all machines, including the ballot marking devices.

#5.6

Questions:

Describe how the proposed BMD will support ADA accessibility.

Clarification Questions:

What specific functionality of the voting system shall “be accessible for individuals with disabilities, including nonvisual accessibility for the blind and visually impaired, in a manner that provides the same opportunity for access and participation (including privacy and independence) as for other voters consistent with federal laws and regulations.

CLARIFICATION RESPONSE:

Original Response:

The ExpressVote allows voters to cast their votes unassisted, thereby maintaining their privacy and anonymity. Every ExpressVote is fully accessible, allowing any voter to select any ExpressVote without the need to declare a disability or be relegated to certain devices.

Most voters, even those with visual impairments or who are blind, can use the corner cut tactile indicator to properly orient the card and insert the cards into the machine. Braille on the face of the ExpressVote indicates where to insert the activation card.



Braille on ExpressVote Face Instructs Voter

Each ExpressVote includes the following functionality:

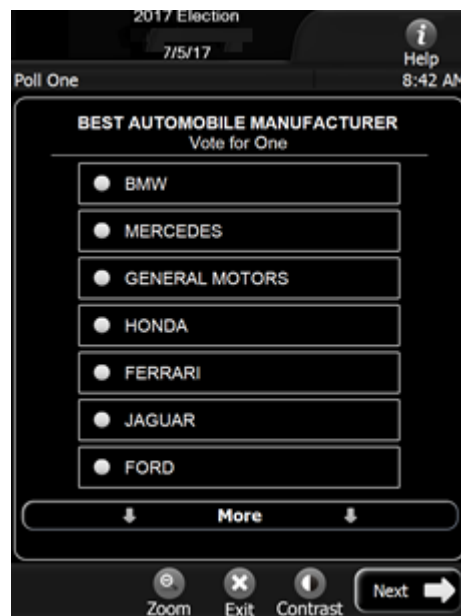
- ✔ Touch screen with colors and accessibility-enhancing effects, including voter-selected font size and contrast settings
- ✔ Interconnected navigational keypad buttons with both Braille and printed text labels designed to indicate function and a related shape to help the voter determine its use
- ✔ Port for a sip-and-puff device, foot pedal, or other two-way switch
- ✔ Audio voting session via text-to-speech or .wav files. Voters can privately listen to instructions and selections at a volume, tone, and speed that will meet their unique needs.
- ✔ High-visibility on-screen ballots with options for Zoom and Contrast



Keypad with Shaped Buttons and Braille



Sip & Puff



High-Contrast Zoomed-In Text Option

The ExpressVote uses electronic technology based on input from election officials and disability organizations. It integrates components such as a digital scanner, printer, touch screen, and a navigational audio-tactile keypad.

Key features of the ExpressVote include:

- ✔ Multiple ballot navigation and selection methods that can be used simultaneously at any time during the voting process.
- ✔ Audio presentation created by either real voice files or through the voice file generator in Electionware Toolbox. Voters privately listen to instructions and selections at their chosen volume and speed. The automated languages are easy to understand for audio-ballot users who tend to significantly increase their speed.
- ✔ Ballot and voter instruction/message presentation in the language selected by the voter both in audio and visual formats. Voting choices and instructions can be displayed in large text on a high contrast background on the touch screen display, as well as played by the audio system in the voter's preferred language.
- ✔ Allows voter to select a black privacy screen during an audio presentation.
- ✔ Tempo and volume controls for adjusting audio ballot presentation.
- ✔ Pause/resume audio capabilities



Paddle

Following is a quote from the website “Blind Bargains” after the author tested accessible voting devices from Hart Intercivic, Dominion Voting Systems, and Election Systems & Software included in section 5-4.

“With my faith in modern voting technology quickly running out, I moved to the last of the machines, The ExpressVote from Election Systems & Software...I walked up to the machine and inserted my paper ballot into the reader, which immediately caused speech feedback to begin. No intervention was necessary from the election workers.... Overall, I completed my 23-question ballot in about 5 minutes. Of the three systems tested, the ExpressVote is the only one I am comfortable recommending in its current form. Set-up was achieved independently by the voter, prompts were spoken efficiently, and a ballot could be completed using the fewest number of key presses.”

Clarifying Information:

The ExpressVote allows voters to cast their votes unassisted, thereby maintaining their privacy and anonymity. Every ExpressVote is fully accessible, allowing any voter to select any ExpressVote without the need to declare a disability or be relegated to certain devices.

Most voters, even those with visual impairments or who are blind, can use the corner cut tactile indicator to properly orient the card and insert the cards into the machine. Braille on the face of the ExpressVote indicates where to insert the activation card.

Each ExpressVote includes the following functionality:

- ✔ Touch screen with colors and accessibility-enhancing effects, including voter-selected font size and contrast settings

- ✔ Interconnected navigational keypad buttons with both Braille and printed text labels designed to indicate function and a related shape to help the voter determine its use
- ✔ Port for a sip-and-puff device, foot pedal, or other two-way switch
- ✔ Audio voting session via text-to-speech or .wav files. Voters can privately listen to instructions and selections at a volume, tone, and speed that will meet their unique needs.
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The ExpressVote uses electronic technology based on input from election officials and disability organizations. It integrates components such as a digital scanner, printer, touch screen, and a navigational audio-tactile keypad.

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- ✔ Allows voter to select a black privacy screen during an audio presentation.
- ✔ Tempo and volume controls for adjusting audio ballot presentation.
- ✔ Pause/resume audio capabilities

Our system is federally certified to the VVSG 1.0 standards, which requires the ExpressVote to be compliant with the American with Disabilities Act (ADA) and summative accessibility and usability testing. Unlike some companies that perform their own testing and can “craft” the test report to show favorable results, ES&S has used 3 different independent labs for this testing and has used elections that are significantly more complex than is required. The 3 test labs are led by some of the most respected experts in the field of usability and accessibility. They are:

- 1) Dr. Juan Gilbert, Chair of the Division of Human-Centered Computing at Clemson University – Dr. Juan Gilbert, now at the University of Florida, is a pioneer in usability of ballot marking devices (BMDs) and is the only academic researcher to build a BMD that was used in a live election.
- 2) Dr. Steven Gilbert, Associate Director, Virtual Reality Application Center/Human Computer Interaction at Iowa State University

3) Dr. Kathryn Summers, Director, Division of Science in Information and Interaction Design Program at the University of Baltimore. Dr. Summers first evaluated the ExpressVote as part of the evaluation for the State of Maryland. She has since been contracted by ES&S to provide further study of the new UI design being implemented in EVS 6.1.0.0. She also contributed to the LA VSAP UI design and is industry renowned for her strong expertise in low literacy and low cognitive users.

Our system is the only system in use today that allows visually impaired or low literacy voters the ability to validate their printed selections. Our future release, EVS 6.1.0.0, will provide 2 modes – one for voters that don't require assistive features and one that has all assistive features they could require. This will greatly increase the speed of vote sessions for both types of users.

#6.2

Questions:

Describe how election configuration information is loaded. Is it done via encrypted, removable memory devices created by the EPDMS or through direct a connection to EPDMS through a LAN?

Clarification Questions:

Is the EPDMS housed on a CPU that can be hosted on premise and air gapped? If the EPDMS is designed to be hosted, please describe if it is possible to run the EPDMS in a private cloud configuration, separated from other customers?

CLARIFICATION RESPONSE:

Original Response:

Using Pollware, our fully-integrated poll data management software solution, users are able to accurately and securely convert their voter registration data into electronic poll data files for use on the ExpressPoll units. Workflow options and pollbook configurations can easily be modified from election to election, allowing users to customize the ExpressPoll experience to meet their specific election and jurisdictional requirements. Jurisdictions – either at the State or County level - will be able to use Pollware software to convert voter registration data into electronic pollbook files, customize the workflow based on voter status, determine how ballots are issued from the pollbook, assign and track equipment and data by poll location, and generate post-election reports and voter history exports for the Voter Registration system.

Pollware is able to accept imports of election ballot data on removable memory devices to ensure the correct ballot assignment is provided to each voter from the electronic pollbook. All elector data is encrypted to meet AES-256 encryption standards. This standard reflects one of the highest encryption levels available. The elector data is encrypted at this level in transfer and at rest. The files are transferred via a USB drive to the pollbooks and from the pollbook to the Pollware software which generates the voter history exports.

Clarifying Information:

The EPDMS - Pollware - is designed to be housed on a single CPU and hosted on premise. It requires no network connection of any kind, and can be air gapped without negative ramification.

Should there be a need, Pollware can also be hosted just as easily in a private cloud, as it was designed in such a way that customers of different preferences can use it without fundamentally changing their business processes or network architecture.

#6.4

Questions:

Ease of Use for the State and Election Official: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.

Clarification Questions:

Please describe in detail how the EPDMS data can be transferred to the Epoll and transferred back from the Epoll. Is it possible to do this without an over-the-air technology like Bluetooth or WiFi?

CLARIFICATION RESPONSE:

Original Response:

As with our ExpressPoll pollbook solution, our Pollware software was designed with an intuitive interface that allows users to accurately and securely convert voter registration files into poll data files used on the ExpressPoll. Users are able to customize their pollbook workflow based on voter status, absentee status, or election type to meet the specific needs of each jurisdiction. Post-election, Pollware quickly converts pollbook transaction logs into reports and voter history files used by the Voter Registration system. As with the ExpressPoll application, the State of Georgia's Pollware application will be crafted to follow current workflow and state-specific needs.

Clarifying Information:

Pollware data is transferred directly to the Epoll - Expresspoll - by way of USB flash drive. Pollware writes data to be ingested by Expresspoll to a specific folder on its workstation. That data is then written to the USB flash drive.

The USB flash drive is inserted into one of the Expresspoll stand's vacant USB slots. Navigating through a short menu of on-screen prompts, Pollware data is then loaded to the ExpressPoll.

This same process works in reverse. Data produced by Expresspoll is transferred back to Pollware by way of USB flash drive eliminating any need for over-the-air technology.

#7.2

Questions:

Describe how election configuration information is loaded. Is it done via encrypted, removable memory devices created by the EPDMS or through direct a connection to EPDMS through a LAN?

Clarification Questions:

How are Epolls connected to other Epolls at a polling location to allow for data to sync? How will the proposed EMS assist GOSOS in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?

CLARIFICATION RESPONSE:

Original Response:

Poll data files, including voter and configuration information, are transferred from Pollware to the ExpressPoll devices via removable USB devices. All elector data is encrypted to meet AES-256 encryption standards. This standard reflects one of the highest encryption levels available. The elector data is encrypted at this level in transfer and at rest. The files are transferred via a USB drive to the pollbooks and from the pollbook to the Pollware software which generates the voter history exports.

Clarifying Information:

Expresspolls are connected to one another at a polling location via standard 802.11n or 802.11ac wireless access point. Synchronization occurs over this connection, and all data synchronizations are encrypted between Expresspolls with AES-256 encryption.

#7.3

Questions:

Describe any software/firmware validation tools built into the device for use in installation, pre-election, and post-election testing to verify that software/firmware has not been modified.

Clarification Questions:

- A. Does the capability exist to validate the Epoll software/firm using hash validation?
- B. If yes, what are the steps needed to obtain a HASH value in the following scenarios? Please specify:
- Initial Acceptance Testing,
 - County Warehouse Pre-Election,
 - Polling Place Setup, and
 - Post Election review (saved as archived documentation).

CLARIFICATION RESPONSE:

Original Response:

During Logic and Accuracy testing, users are allowed to assign specific devices to a specific polling location using the pollbook's unique Device Name. This ensures that the correct pollbook and poll data set is deployed to each location, preventing unauthorized or incorrect access of voter data from the electronic

pollbooks. Additionally, all data is encrypted at AES 384 in transfer and at rest on the application and requires the correct entry of the Pollbook Qualification Code (PQC) to decrypt and access the poll data files generated from Pollware. If the PQC is incorrect, the system prevents access to the voter data. As is the case today, testing is conducted on each ExpressPoll software process for negative outcomes and for system level integration in order to validate data across the multiple systems. Testing procedures (both Acceptance and Logic and Accuracy), can be customized specifically for the State of Georgia during the implementation process to help ensure data integrity.

Clarifying Information: CONFIDENTIAL

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#7.4

Questions:

Ease of Use for the Election Official: Provide and demonstrate customer experiences via referrals and specific case studies or white papers including access, special features, and any other customer feedback.

Clarification Questions:

How long does the equipment last? Will the equipment be available for the life of the contract? How will the proposed EPOLL assists Election Official in preparing 159 individual databases within 25 business days, where the county has a local race and a statewide race?

CLARIFICATION RESPONSE:

Original Response:

The ExpressPoll electronic pollbook was developed to make Election Day setup quick and easy--in fact, setup takes mere seconds. Simply remove the ExpressPoll stand from the carrying case and push the power

button. The 10-inch touch-screen tablet, barcode reader, external USB ports and power supply are fully integrated, eliminating the need to assemble or connect any components to open the polls. The ExpressPoll software features an intuitive interface that allows poll workers to quickly and confidently complete voter look up and issue ballots. Developed with Election Day users in mind, the application includes streamlined screens designed to simplify navigation throughout every process. On average, users are able to log in, open polls, search voter records and issue a ballot in less than 60 seconds. Subsequent voter searches, both with manual data entry or by scanning a barcode, can be completed in less than 20 seconds. Poll Place information, such as location details, battery percentage and ballot issued totals, is displayed onscreen, allowing users to quickly verify important information. Post-election, encrypted pollbook transaction logs can be downloaded from the pollbook to a USB device by entering an access code, created by the jurisdiction, and following the onscreen prompts. The thoughtfully designed ExpressPoll electronic pollbook system empowers even novice users to become experts in a short amount of time, improving accuracy of issued ballots and reducing issues on Election Day.

Clarifying Information:

The ExpressPoll stand is purpose built and based on a point-of-sale design customized for elections use. Similar designs and materials are found in airport self-service check-in kiosks and self-service point-of-sale systems. It uses high quality and durable materials, and once the tablet and stand are assembled and married, the ExpressPoll requires no further assembly for transit to and from the polling place. Set-up on Election Day is as easy as placing the unit on a table, plugging it in, and powering it on.

The ExpressPoll tablet is a Microsoft Surface Go tablet with Microsoft Windows 10 Enterprise LTSC. The inclusion of Microsoft Windows 10 Enterprise LTSC ensures that the operating system utilized on the tablet will be supported with security and critical updates through the year 2028 by Microsoft.

Due to the underlying operating system being supported by the manufacturer through the year 2028, the ExpressPoll software/firmware running on Microsoft Windows 10 Enterprise LTSC is ensured to work through the life of the contract, even if different tablet hardware has to be sourced for augmentation or replacement purposes.

As we've described in previous answers, all election media required for the Expresspoll is programmed from a single program – in this case, Pollware. Because the ES&S SVS solution is end-to-end, Pollware is able to seamlessly accept election ballot data imports from Electionware to ensure the correct ballot assignment is provided to each voter from ExpressPoll for statewide and local elections alike.

Pollware data built at the State level can easily be distributed to counties via secure file transfer or by means of a single USB flash drive shipped to each county. Any need for the GASOS to produce pre-election media for every Expresspoll in the state is eliminated since required files are downloaded to the Expresspoll unit. Creating removable, external media for each unit is no longer necessary, thereby saving valuable time for GASOS staff before each election.

ES&S TRAINING SUPPLEMENTAL NARRATIVE & PROJECT PLAN

THE ES&S APPROACH TO ON-SITE TRAINING

Election Systems & Software understands that a successful transition to new election technology depends on more than executing a logistics plan. A key element to success is ensuring that the State of Georgia is empowered with the knowledge to administer the new system and carry out a trouble-free election. To make this transition successful, we emphasize on-site training as a critical component of our overall implementation plan. Our training goal is to ensure a strong level of comfort and competency for Georgia's election staff and poll workers. ES&S is committed to maintaining our flexible approach in tailoring the right mix of products, training, support and service to the State of Georgia.

TRAINING THE ES&S WAY

The ES&S curriculum is based on our decades of experience in implementing new voting systems. Our customized approach to training Georgia's election team anticipates the wide range of skills needed to carry out a successful election. Our courses are tailored to the State and each individual County. The courses incorporate a high degree of hands-on instruction and simulations, increasing the relevancy of every minute Georgia election workers spend in the classroom.

ES&S TRAINERS: EXPERIENCE THAT MATTERS

ES&S has carefully selected our training staff to provide the very best training experience for Georgia's election staff. We require all personnel on our Operations Training team to be certified ES&S trainers. This begins with a minimum of two years of experience as an instructor and continues with customized product certification. Additionally, each of our training staff members has personally supported elections using ES&S voting equipment. Our trainers have first-hand knowledge of the challenges Georgia's election workers could face with your new equipment. We can anticipate staff concerns and appreciate the challenges of using a new voting system.

ES&S' TRAINING PLAN

Introducing new technology presents unique challenges. Training is our primary concern in implementing a new elections systems solution. ES&S measures the success of new equipment installations by the quantifiable way in which our clients can manage their unique election processes while using the ES&S system. Our comprehensive, classroom-based training program promotes a strong level of competency for all intended users through training modules developed to provide Georgia's election team with the skills to perform necessary operations.

ES&S CONTINUING EDUCATION & SUPPORT

The ES&S method aims at fully preparing election staff to ensure autonomy in election operations while using our equipment. We understand long-term needs may require a combination of continuing education courses and/or on-site support. These continuing education and site support needs from our experienced training team can be coordinated and tailored to meet Georgia's unique requirements.

ES&S INSTRUCTIONAL DESIGN

Our ES&S Instructional Design team has developed a comprehensive series of training documentation including Administrator, Poll Worker, and Troubleshooting Guides. Our goal with these training materials is to provide your election staff with easy-to-follow operating procedures to refer to after the classroom training has concluded. This approach to our customized manuals allows your election staff to be fully prepared and ensures autonomy in election operations while using our equipment. Copies of these training guides are provided as an attachment to this training plan.

ES&S TRAINING PROJECT PLAN

ES&S is providing in the following pages, a comprehensive presentation of responses to Sections 9 and 10 pertaining to the execution of the Training Project Plan. Additionally, ES&S has provided the complete package of training guides to be used during GASOS and County training sessions in Attachment A.

#9.1

Questions:

Provide an extensive, in-depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries.

Clarification Questions:

Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.

Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.

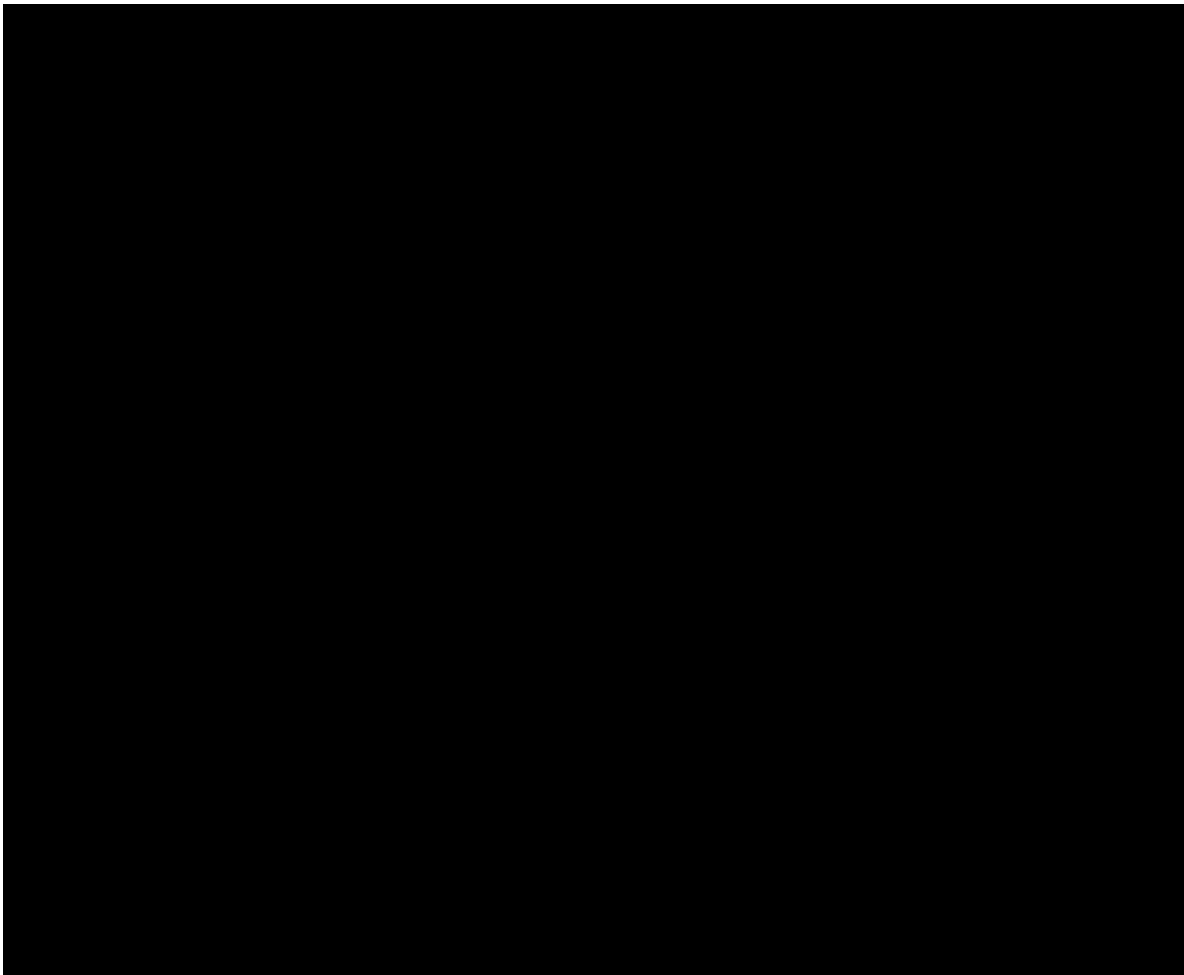
Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).

CLARIFICATION RESPONSE:

Original Response:

ES&S agrees and will comply. Documentation for the below training plan is provided as an attachment in response to Section 18.5.

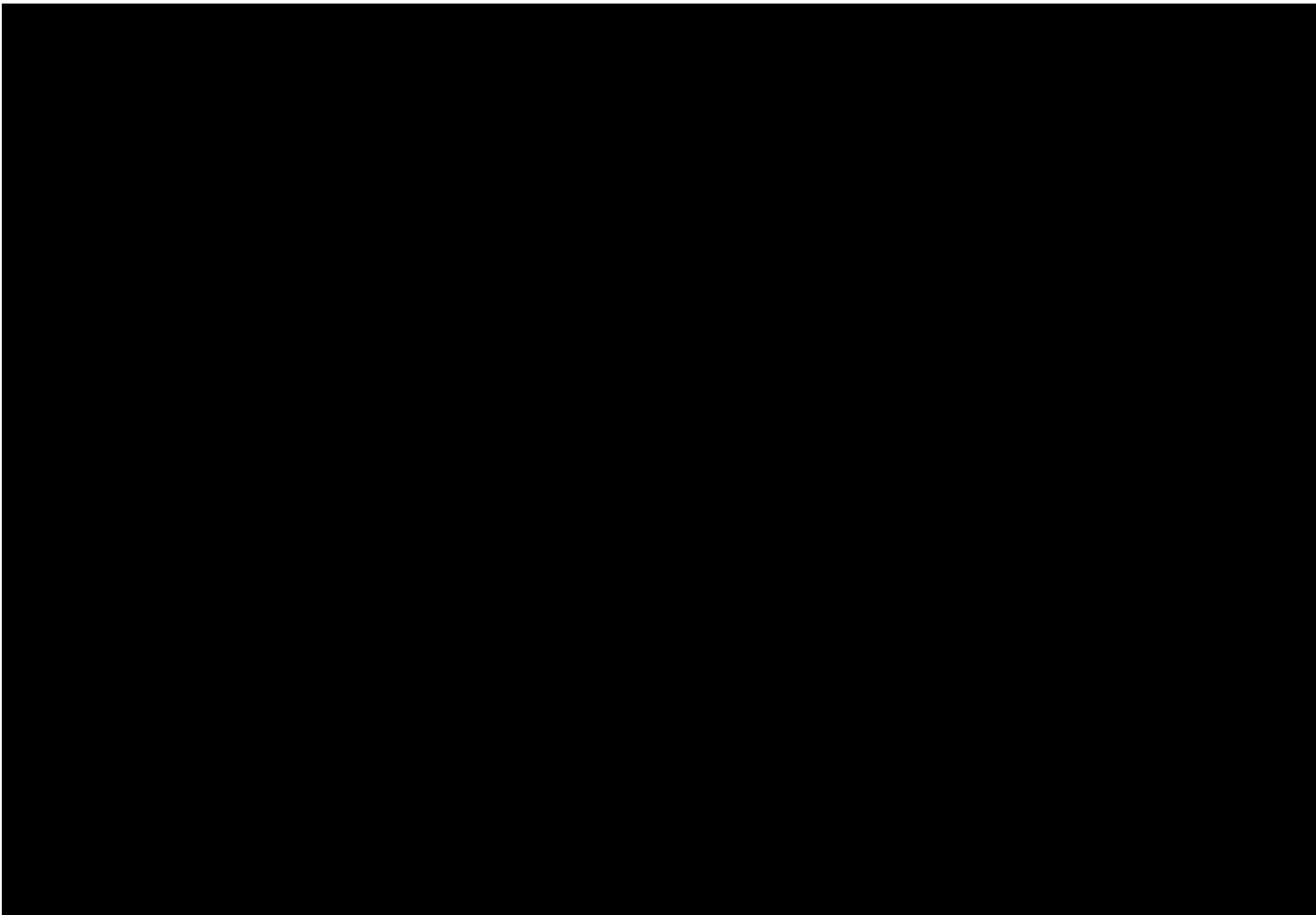
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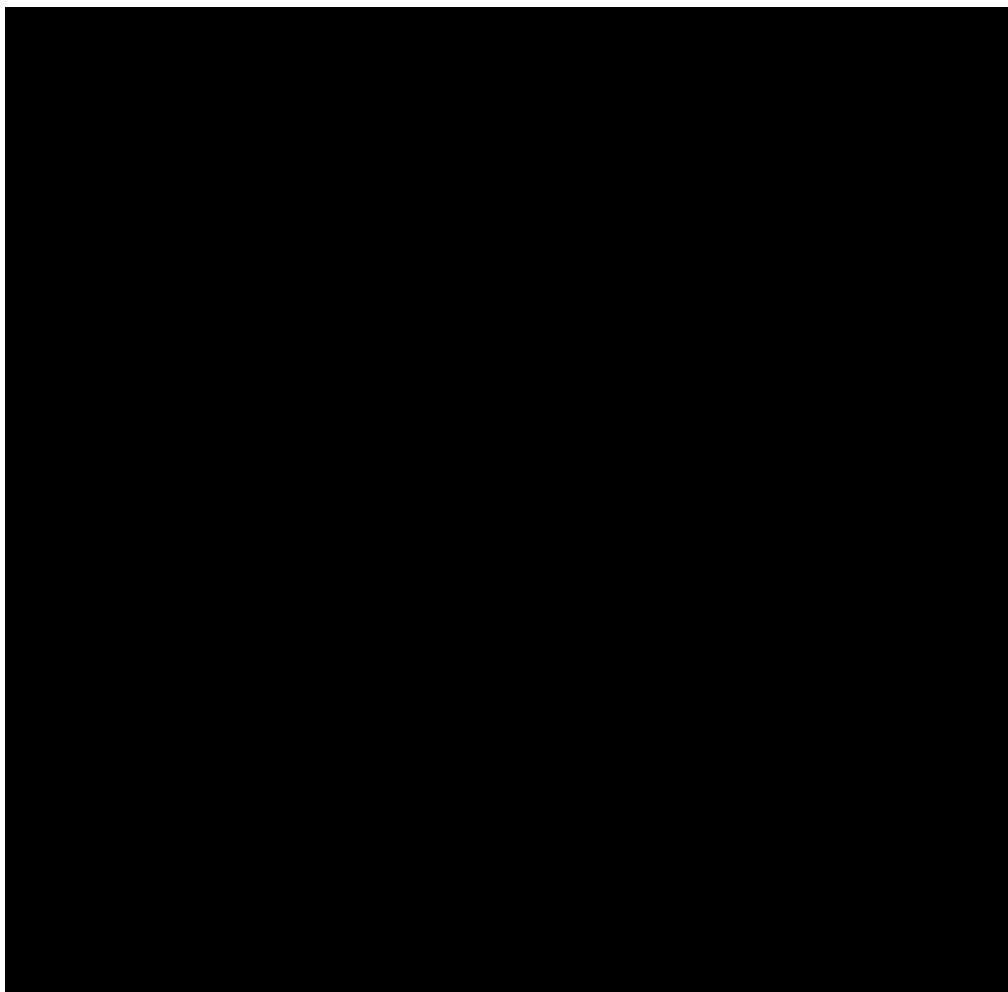


Clarifying Information:

CONFIDENTIAL







TRAINING DOCUMENTATION

ES&S has provided the complete documentation for the GASOS EMS training course as Attachment A.

#9.2

Questions:

Provide an extensive, in-depth training plan and documentation for GASOS staff on the setup and use of the proposed PPS, CSD, and BMD.

Clarification Questions:

Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase I will be the full inventory distribution and necessary training of up to ten

(10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.

Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.

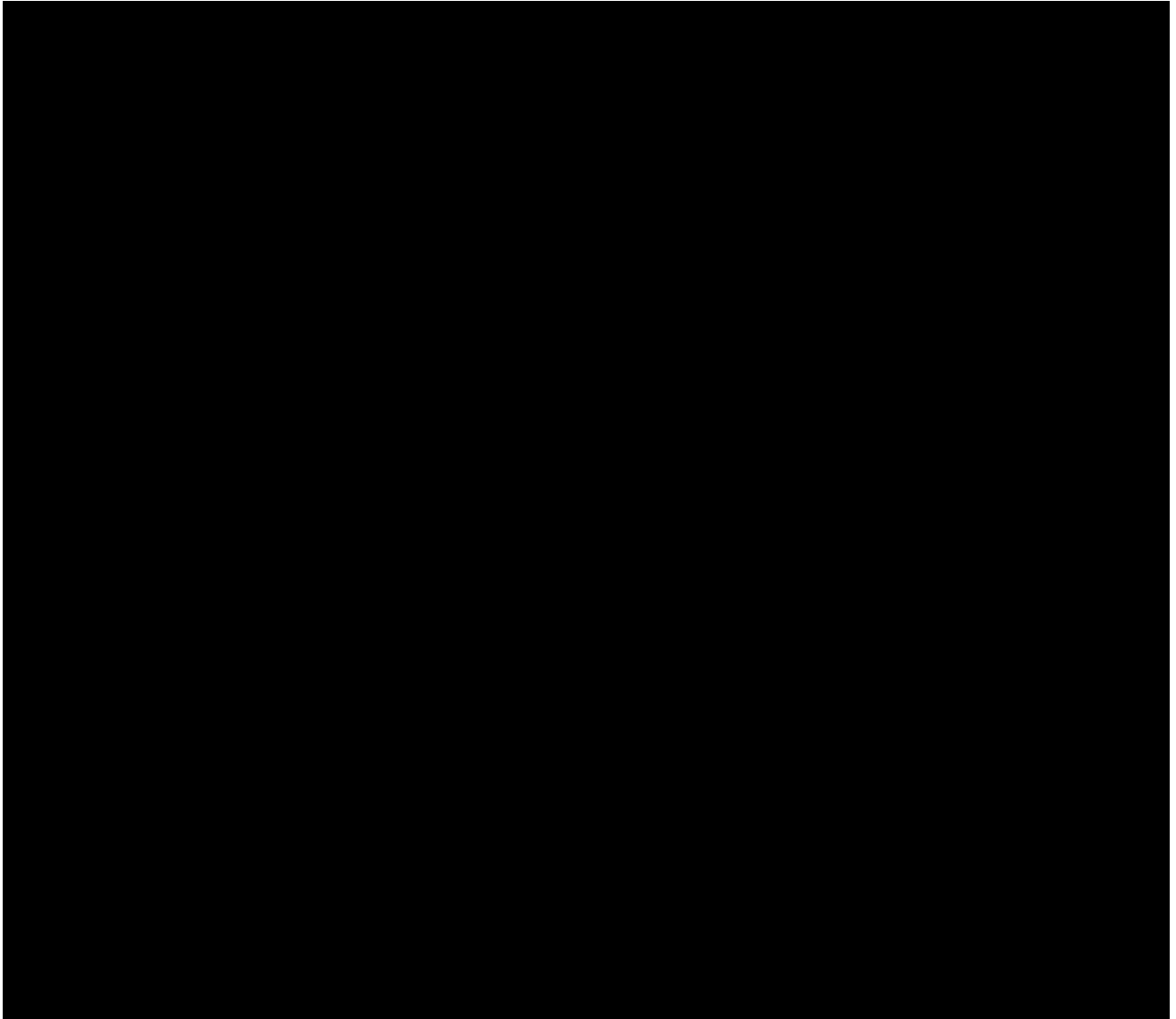
Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).

CLARIFICATION RESPONSE:

Original Response:

ES&S agrees and will comply. Documentation for the below training plans is provided as an attachment in response to Section 18.6.

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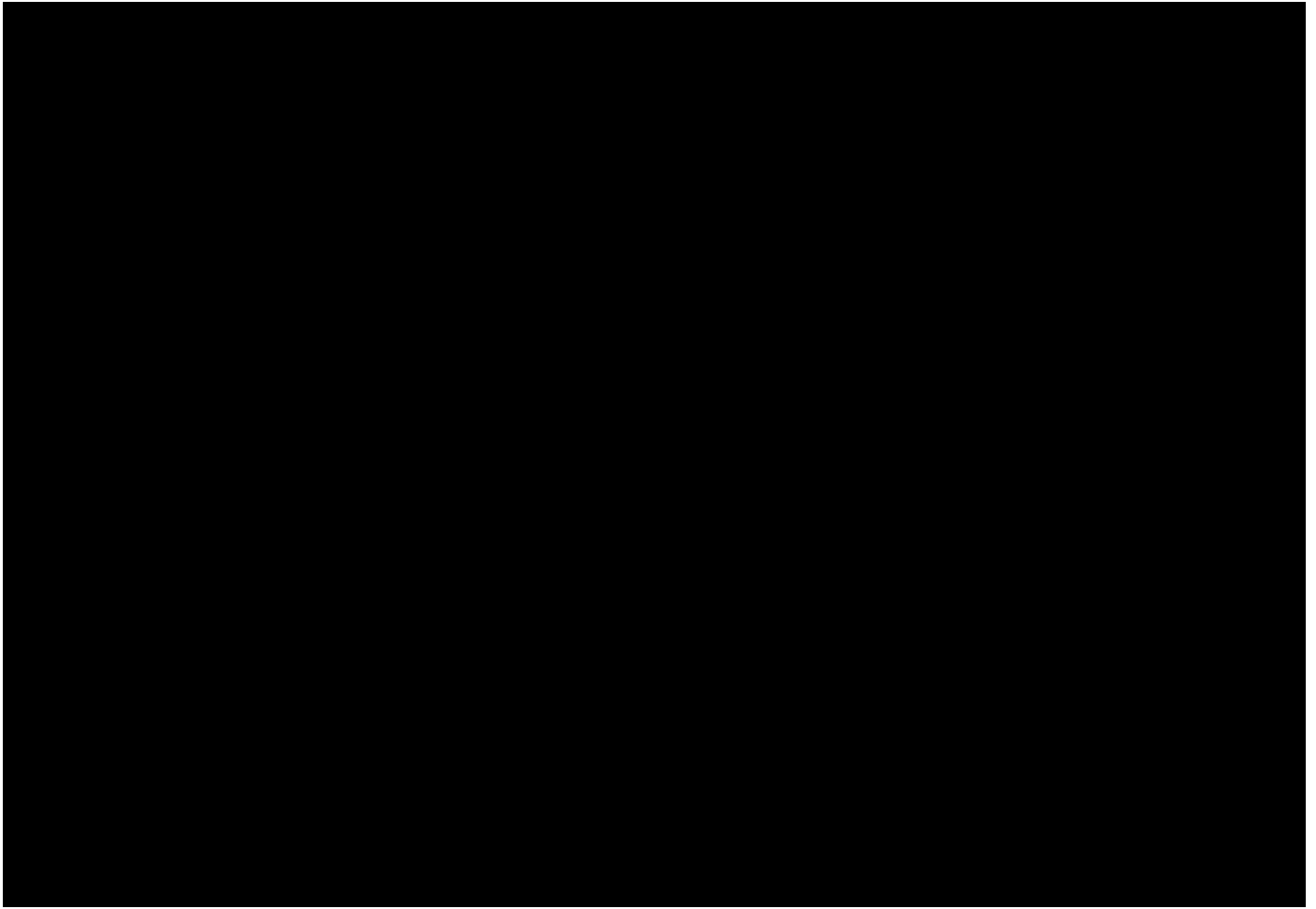


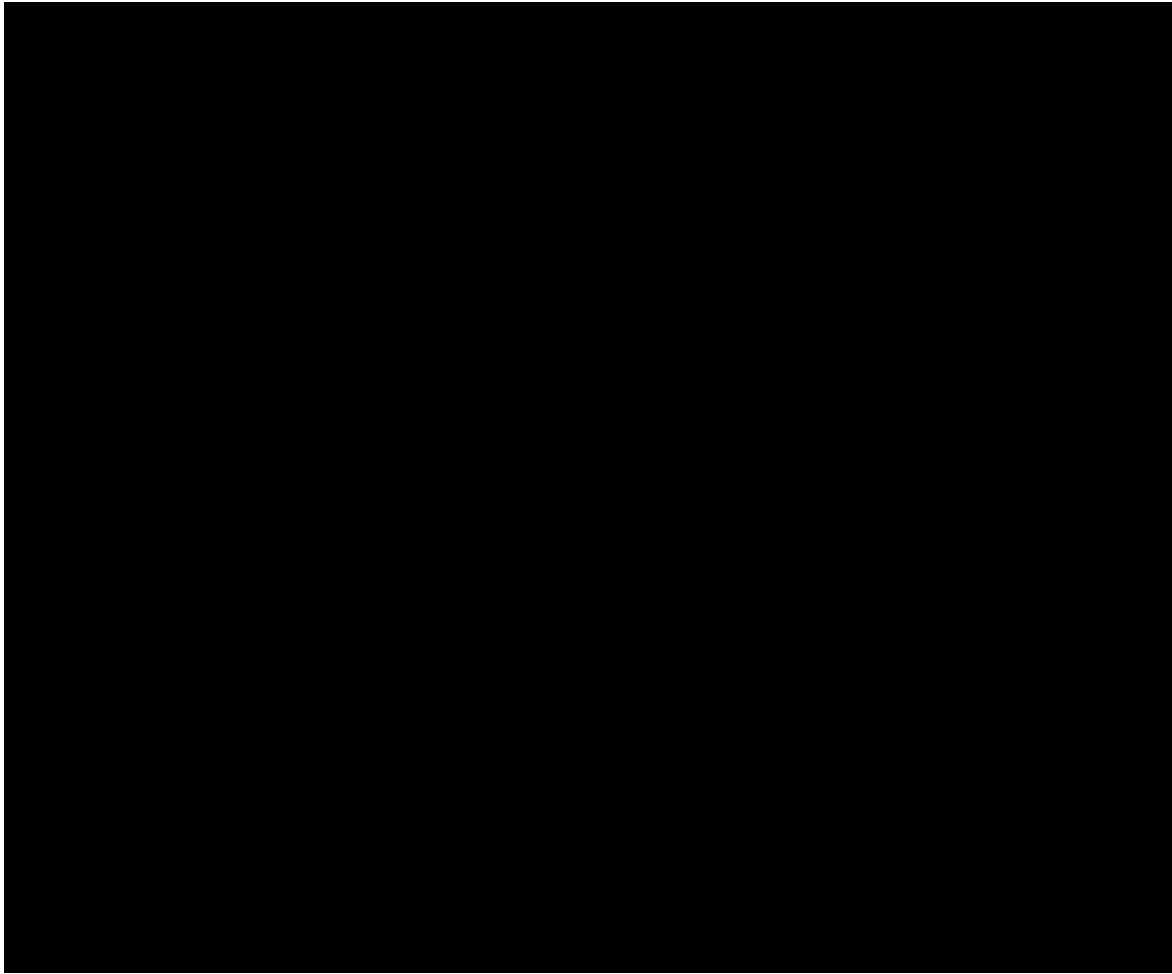


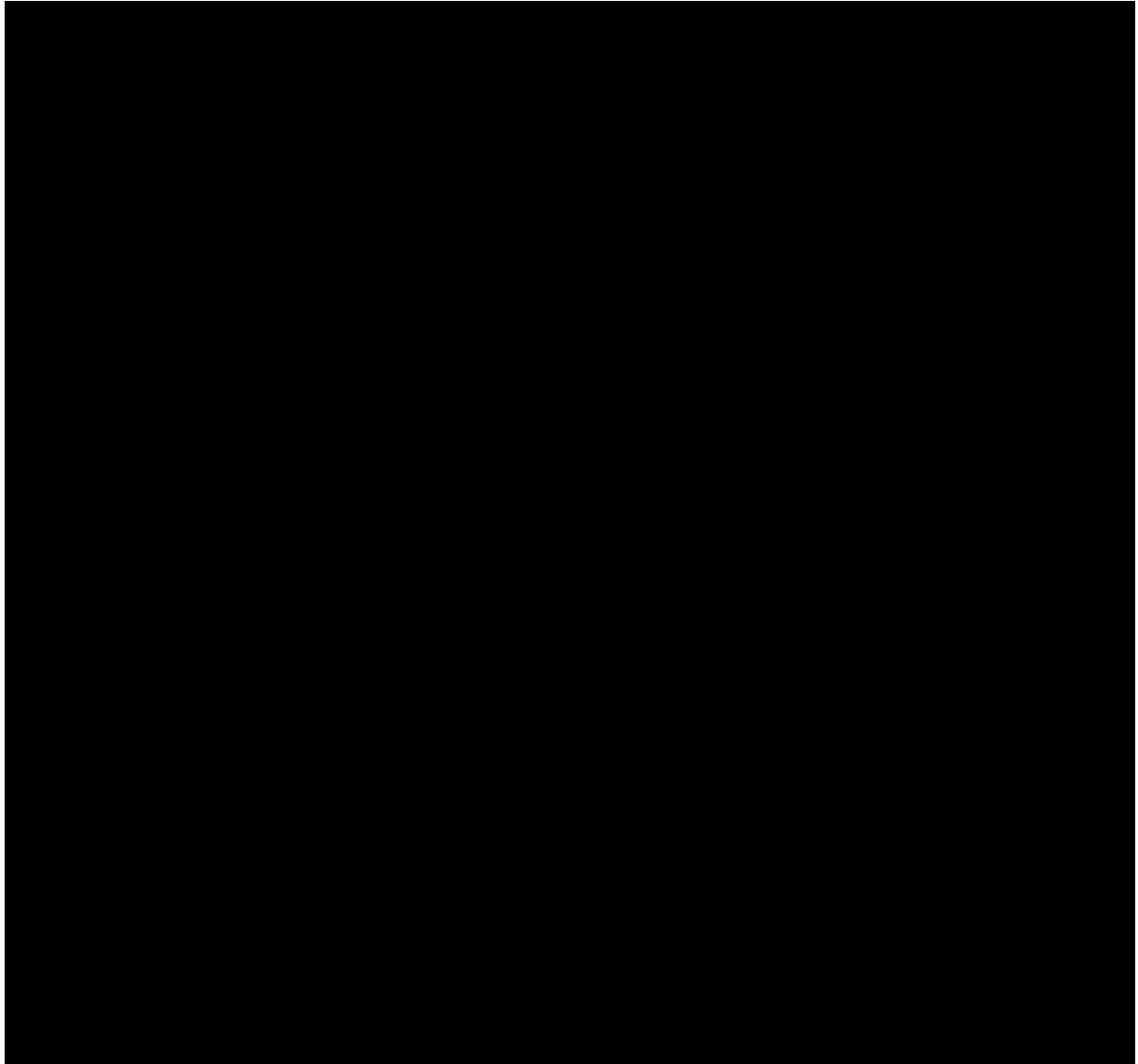
Clarifying Information:

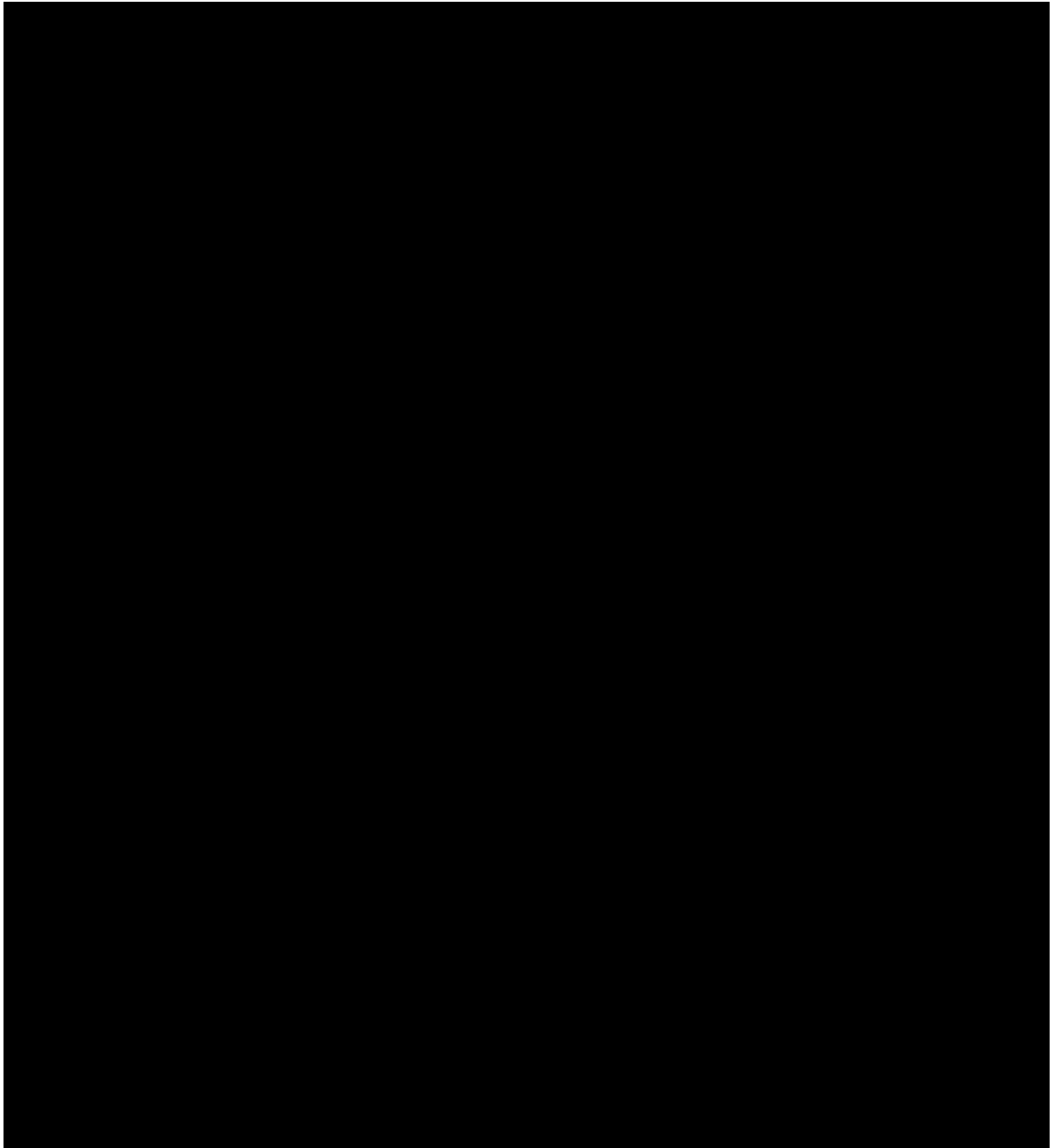
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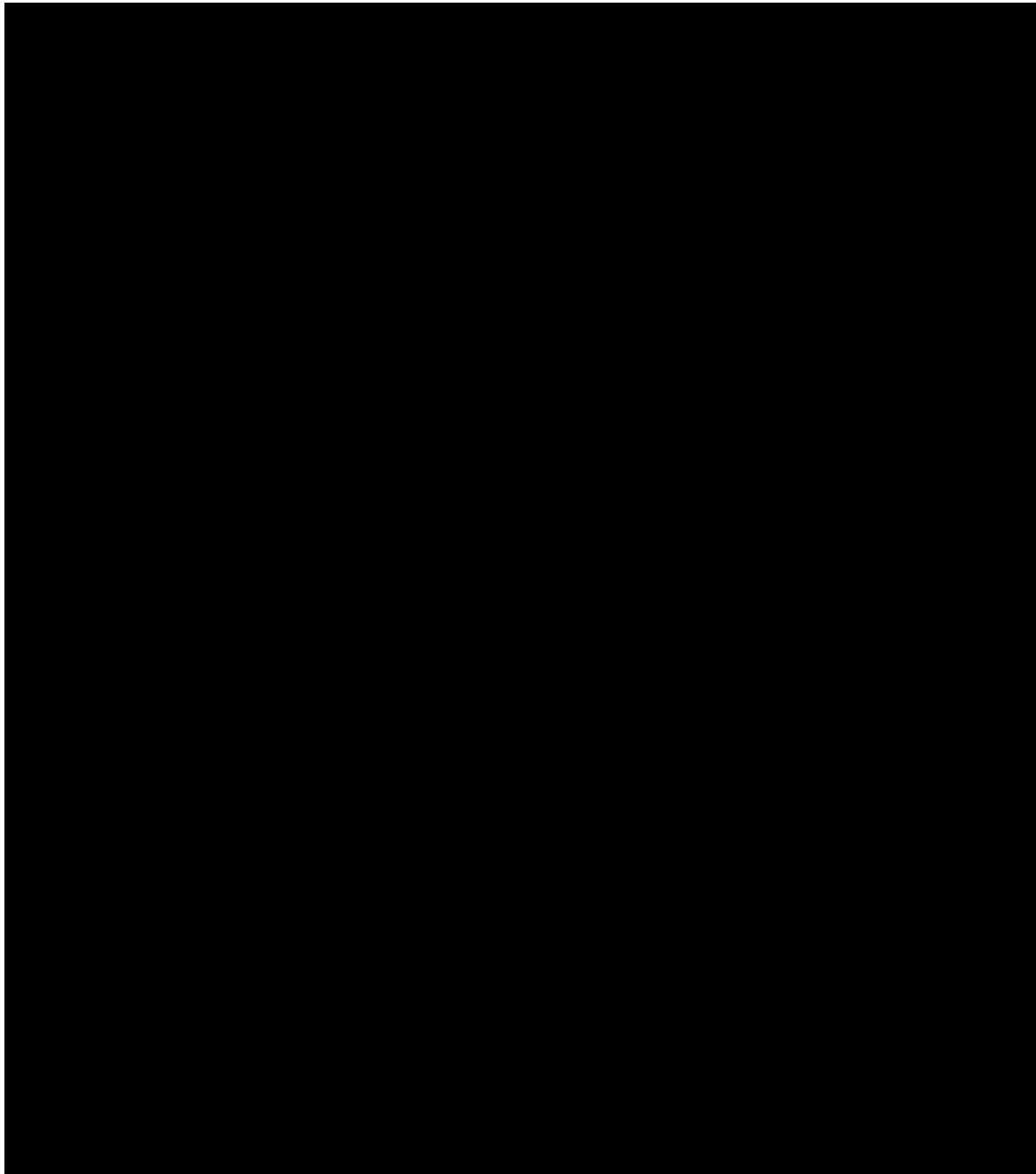












TRAINING DOCUMENTATION

ES&S has provided the complete documentation for the GASOS equipment training courses as Attachment A.

#9.3

Questions:

Provide extensive, in-depth training plan and documentation for GASOS staff on the setup and use of the proposed EPDMS and EPolls.

Clarification Questions:

Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.

Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.

Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).

CLARIFICATION RESPONSE:

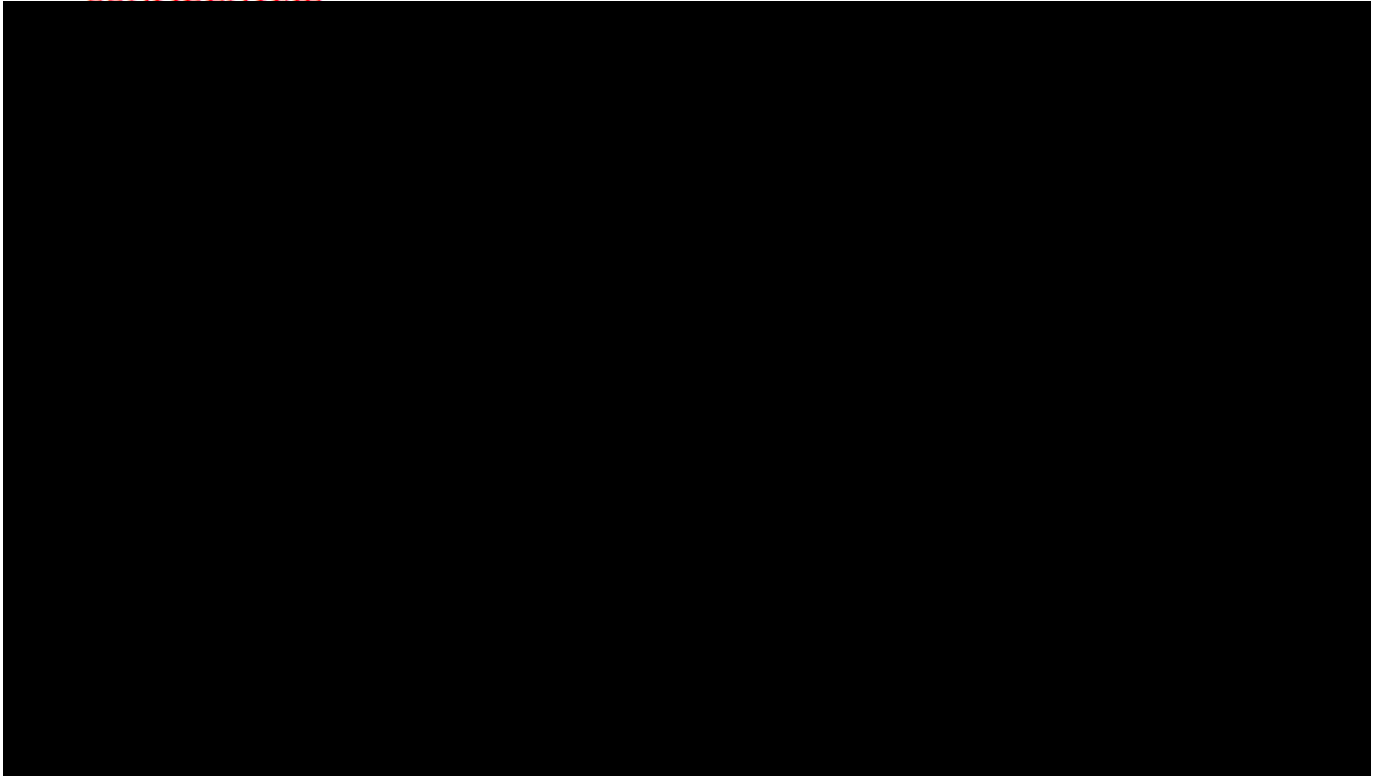
Original Response:

ES&S agrees and will comply. Documentation for the below training plan is provided as an attachment in response to Section 18.6.

CONFIDENTIAL



CONFIDENTIAL



Clarifying Information:

CONFIDENTIAL

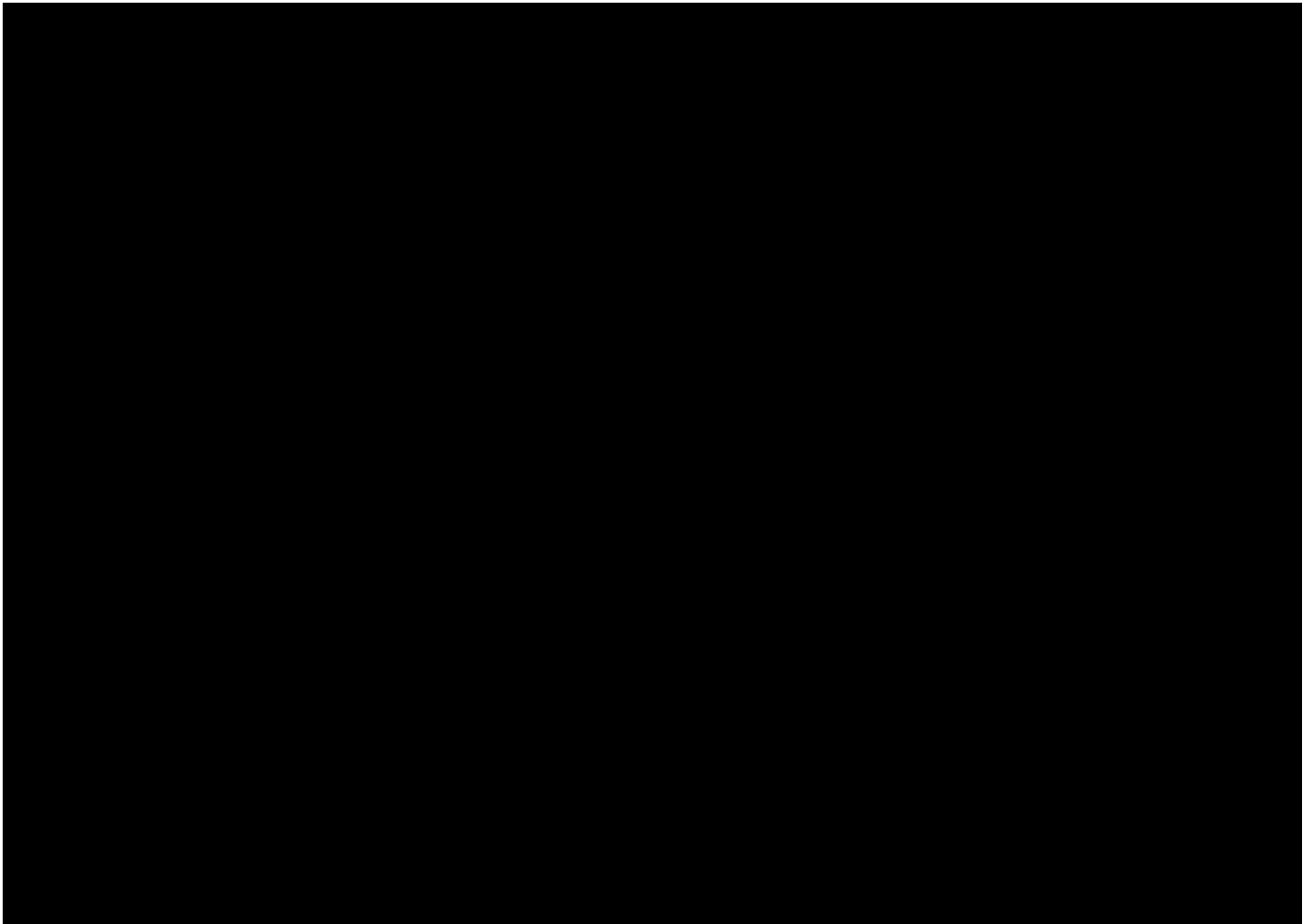
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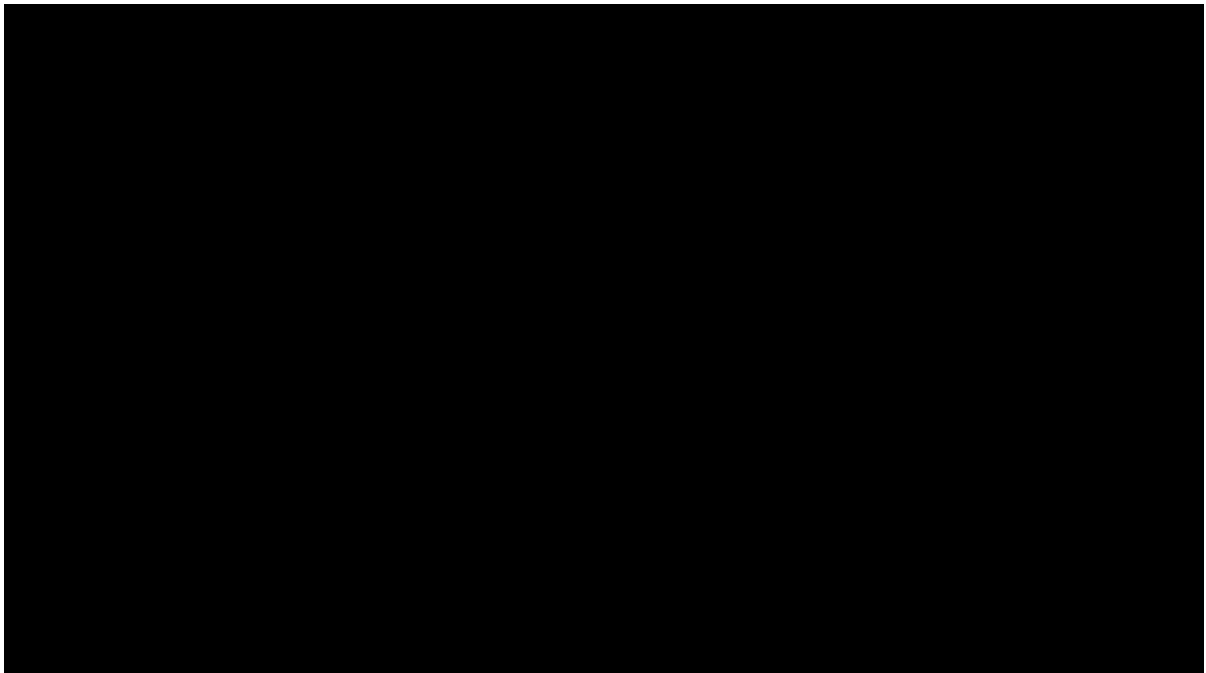
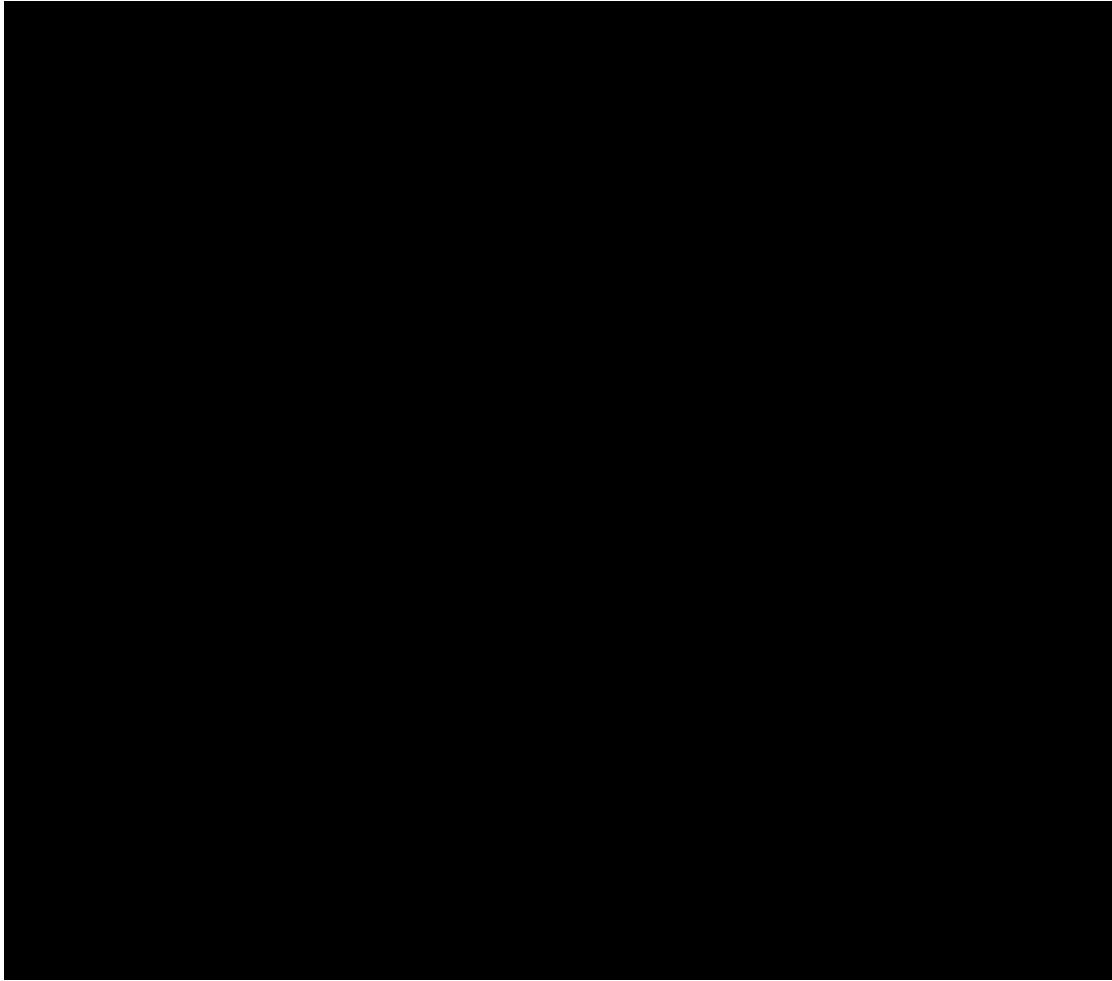
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TRAINING DOCUMENTATION

ES&S has provided the complete documentation for the GASOS EPoll and EPDMS training courses as Attachment A.

#10.1

Questions:

Provide an extensive, in-depth training plan for county election officials on the setup and use of the proposed PPS, CSD, and BMD. Include a diagram of Advance-In Person voting and Election Day setup of all proposed SVS components.

Clarification Questions:

Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.

Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.

Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).

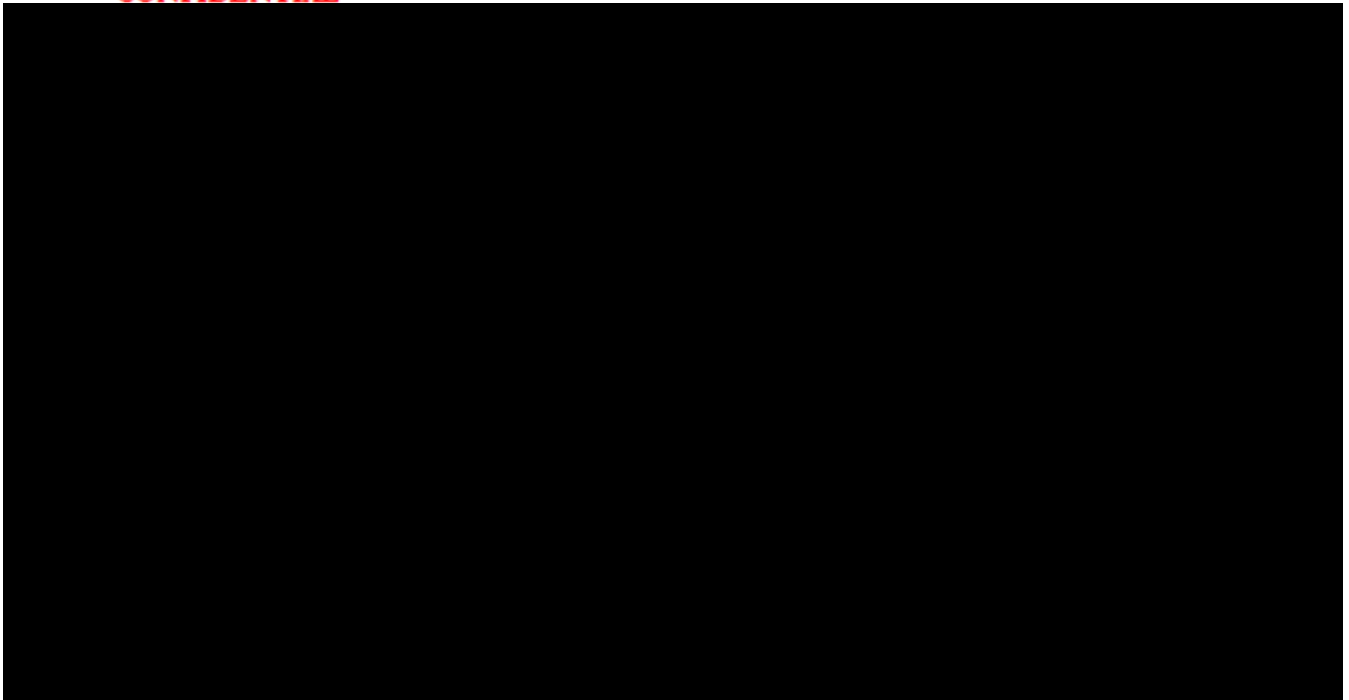
CLARIFICATION RESPONSE:

Original Response:

Please refer to Section 9.2 for full PPS, CSD, and BMD equipment course descriptions, as they will be the same training plans for both GASOS and the counties.

The county-level EMS system training will follow the below curriculum:

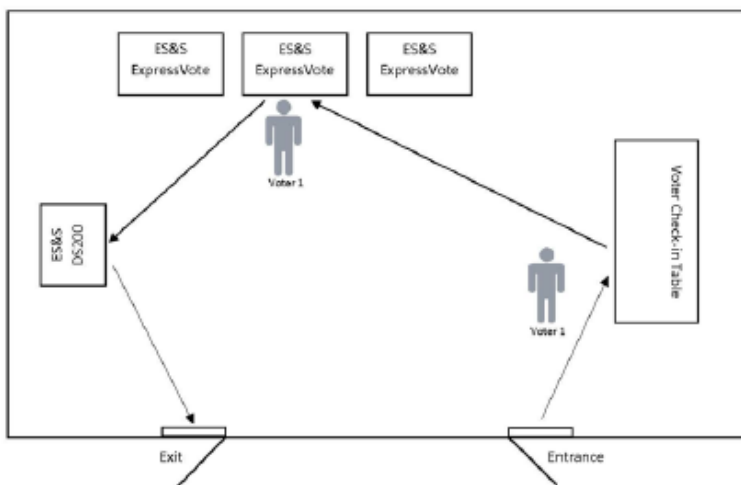
CONFIDENTIAL



Please see the below diagrams for Advance-In Person and Election Day voting setup.

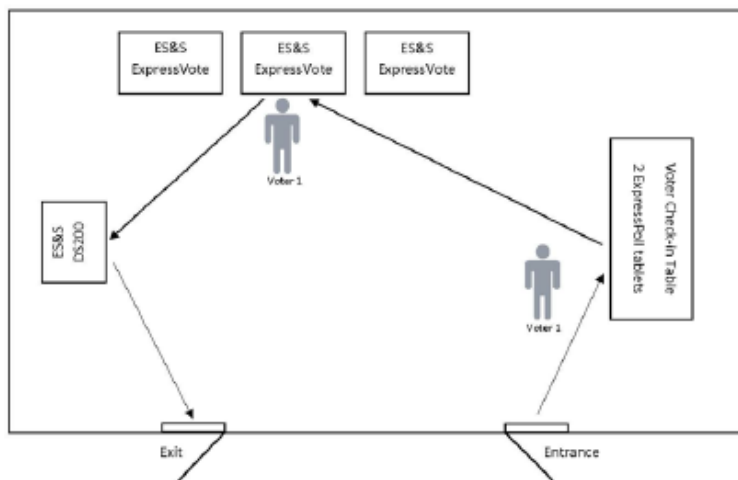
Advance-In Person Layout DS200 & ExpressVote Voter/ADA

**Layout can vary*



Election Day Layout ExpressPoll, DS200 & ExpressVote Voter/ADA

**Layout can vary*



Clarifying Information:

CONFIDENTIAL

[REDACTED]

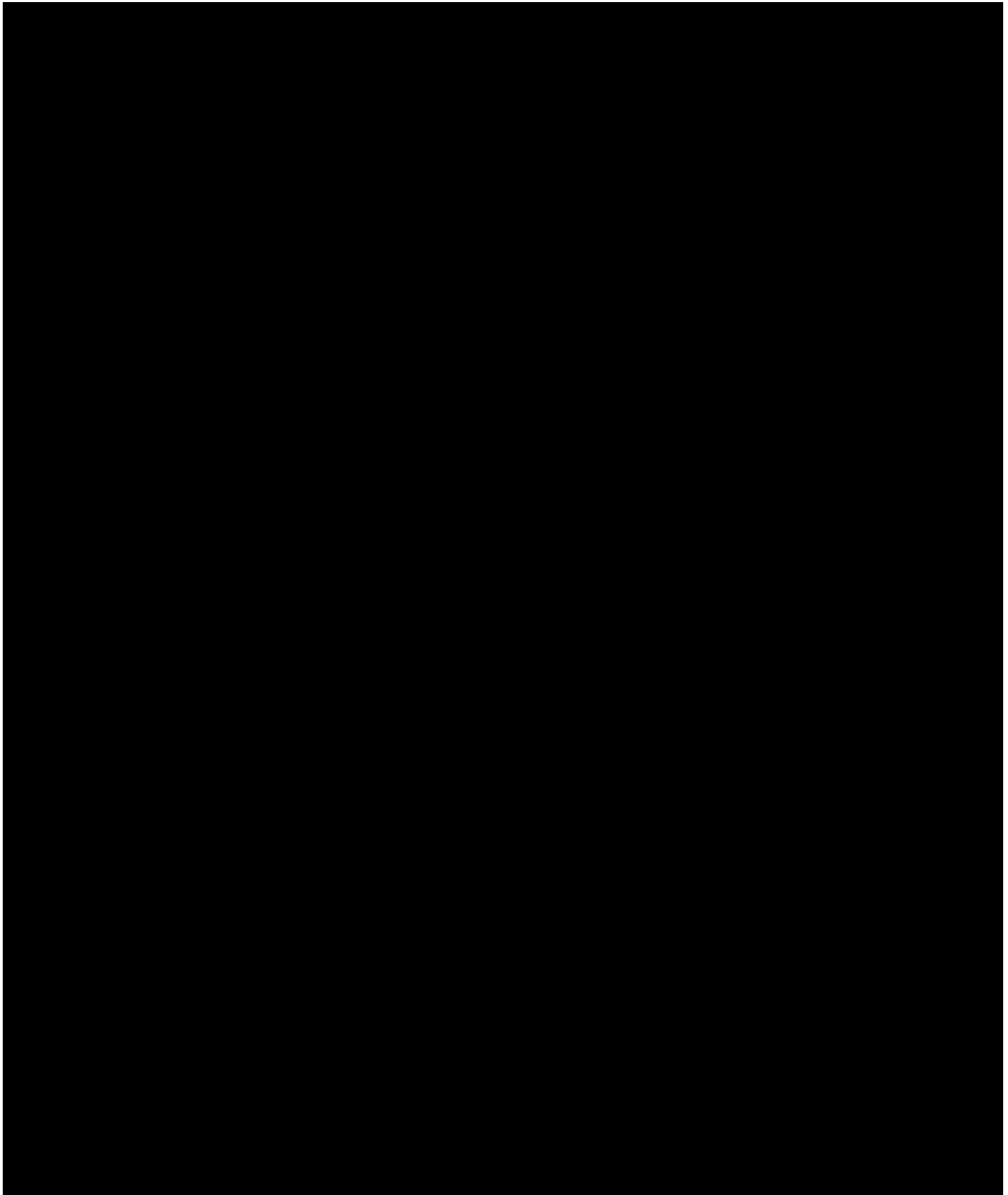
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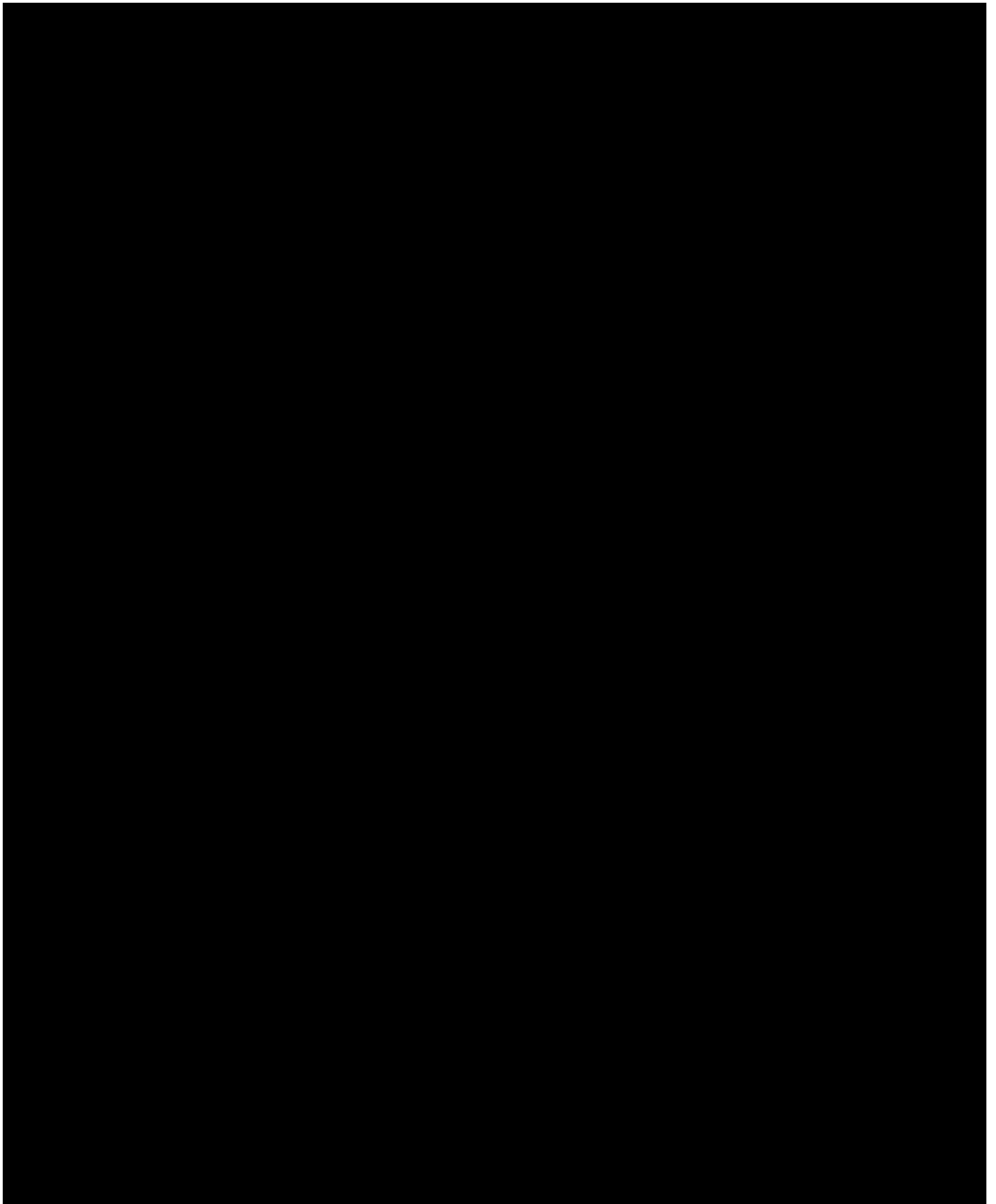
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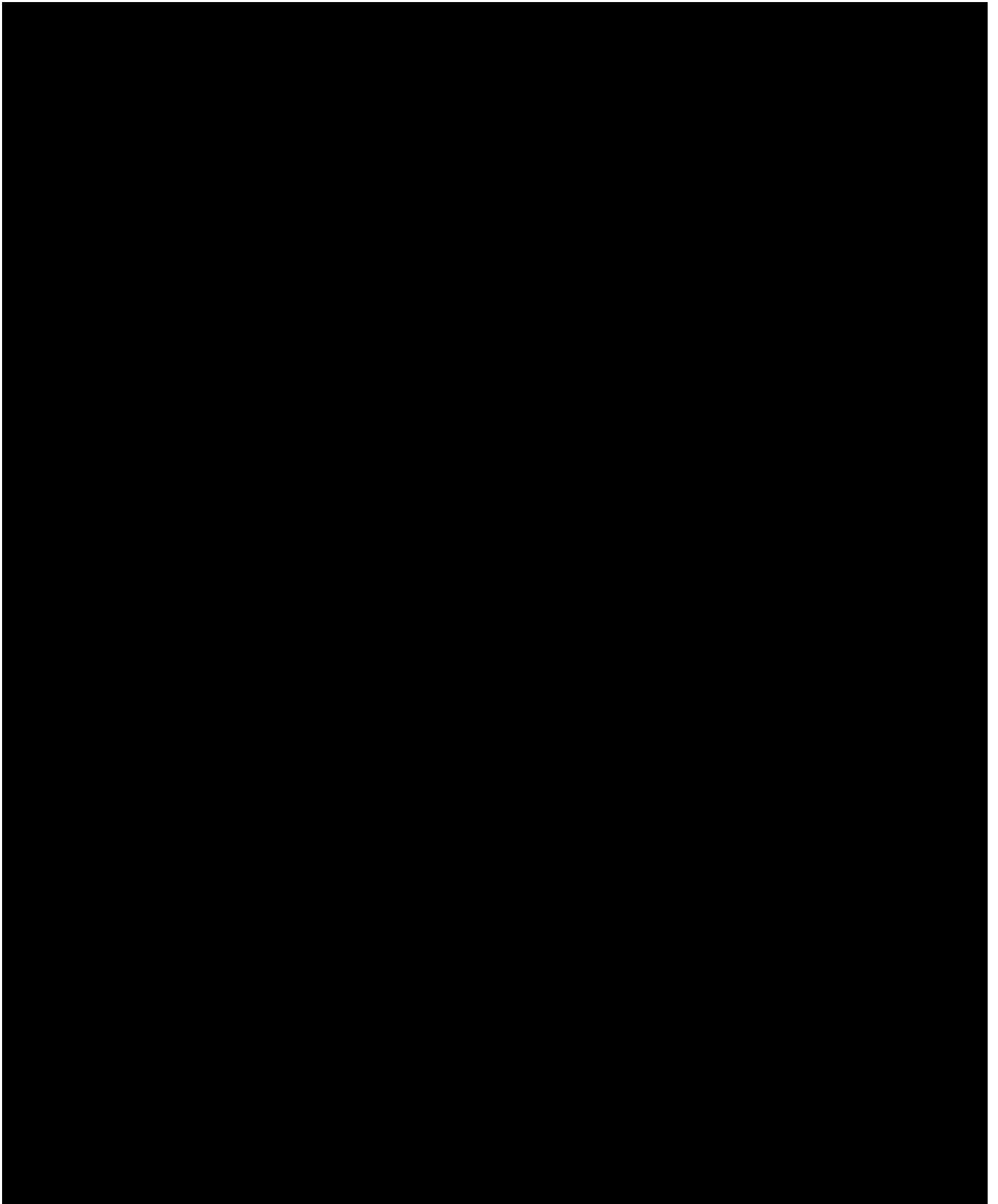
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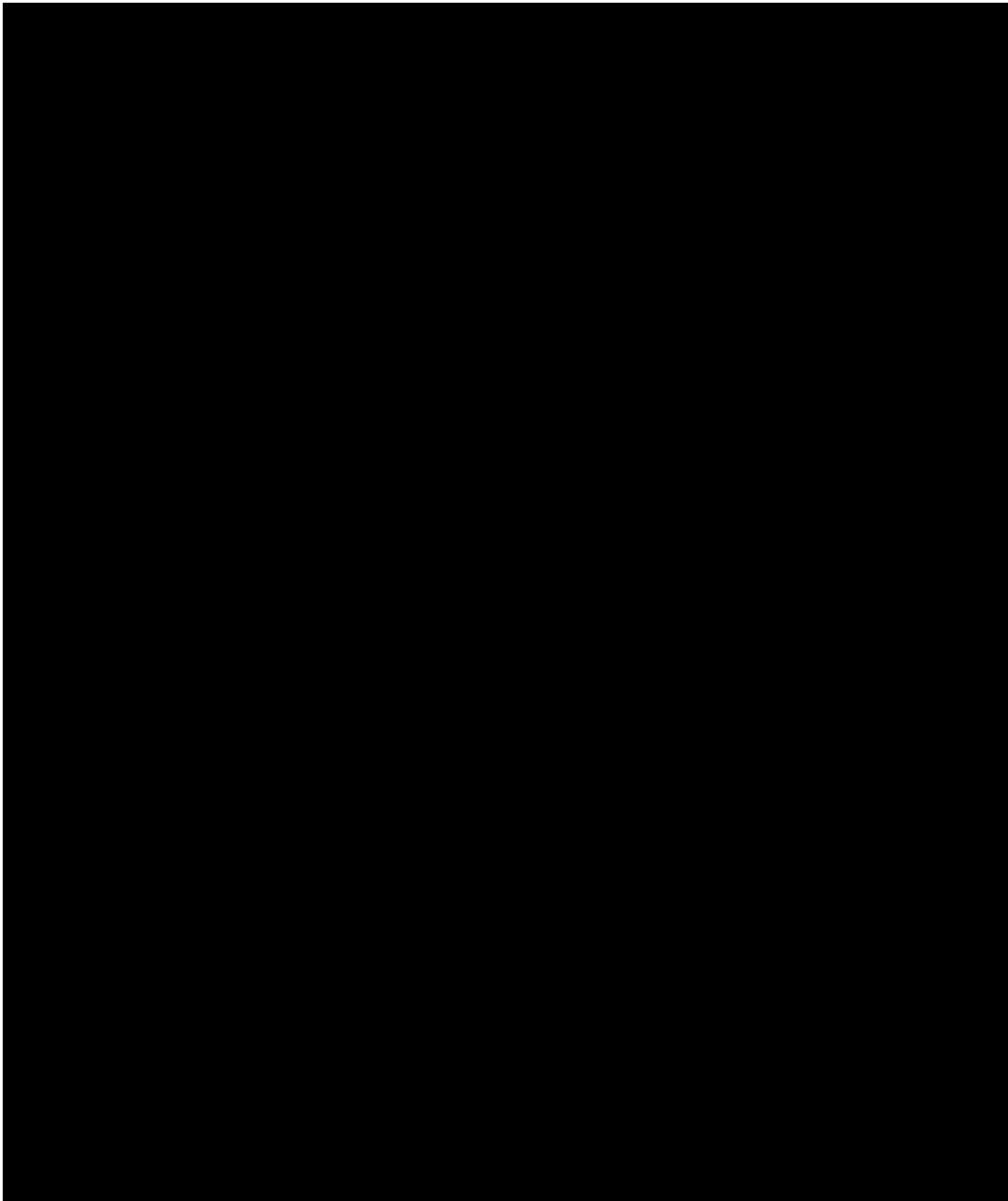
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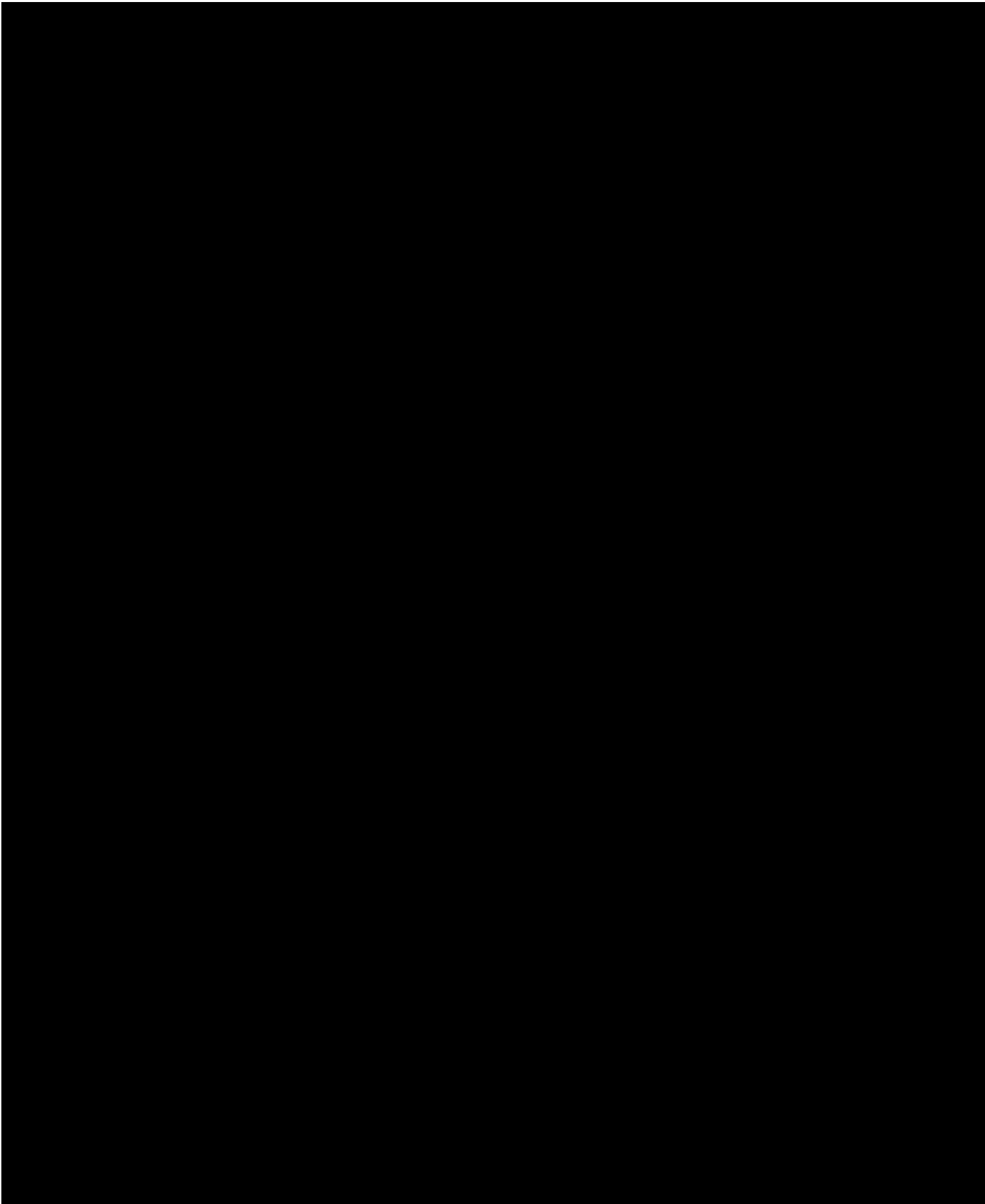
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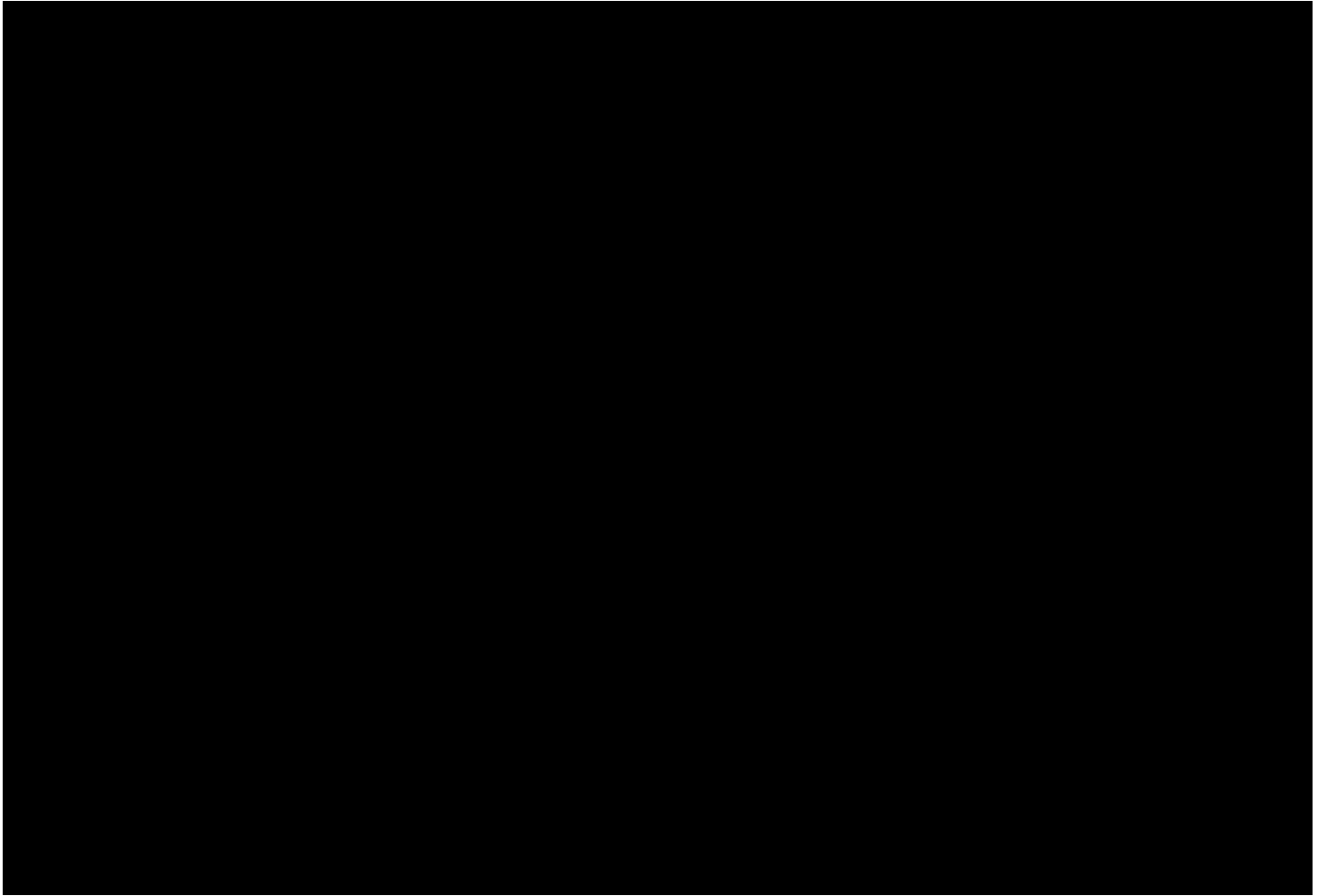






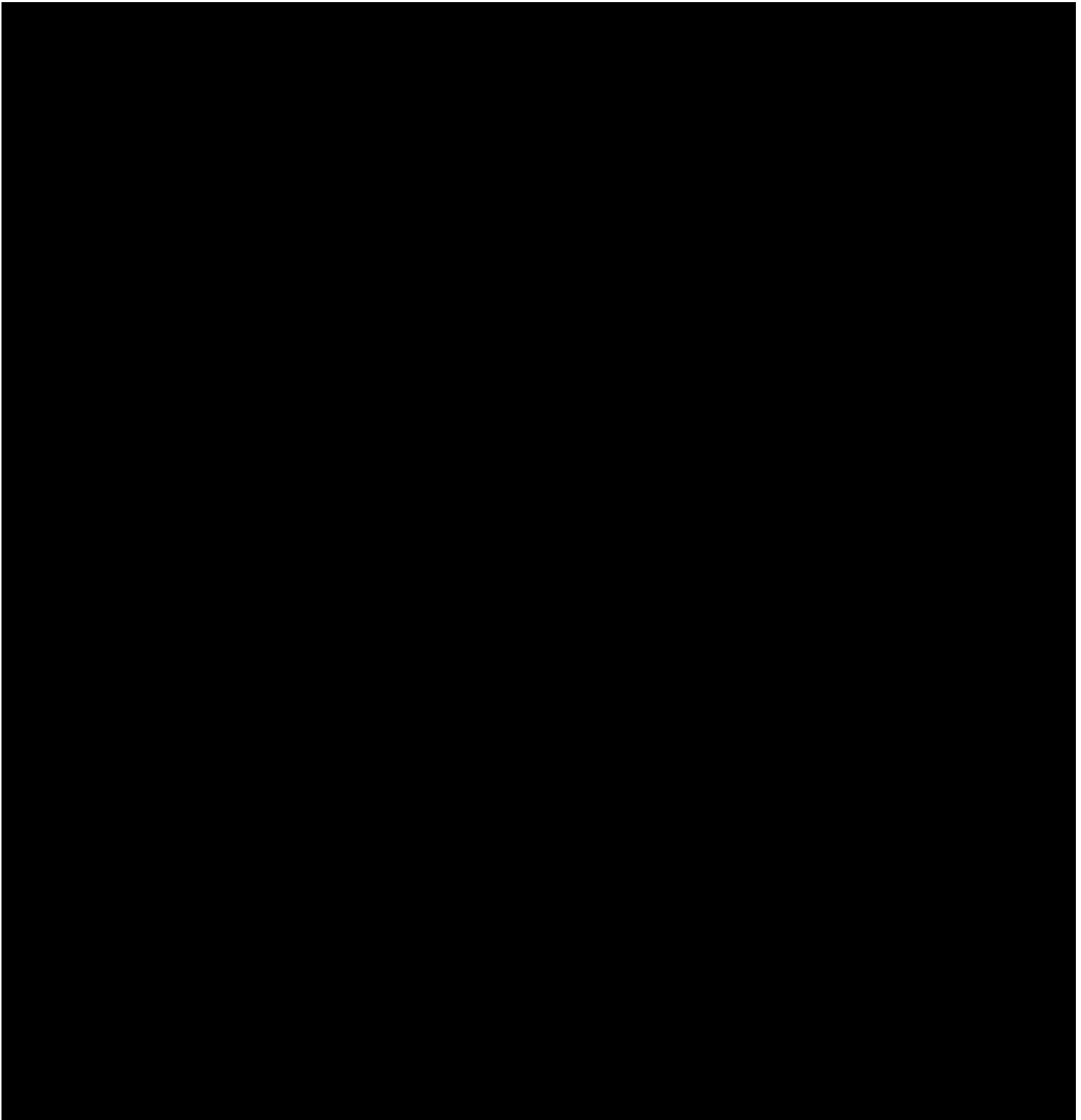


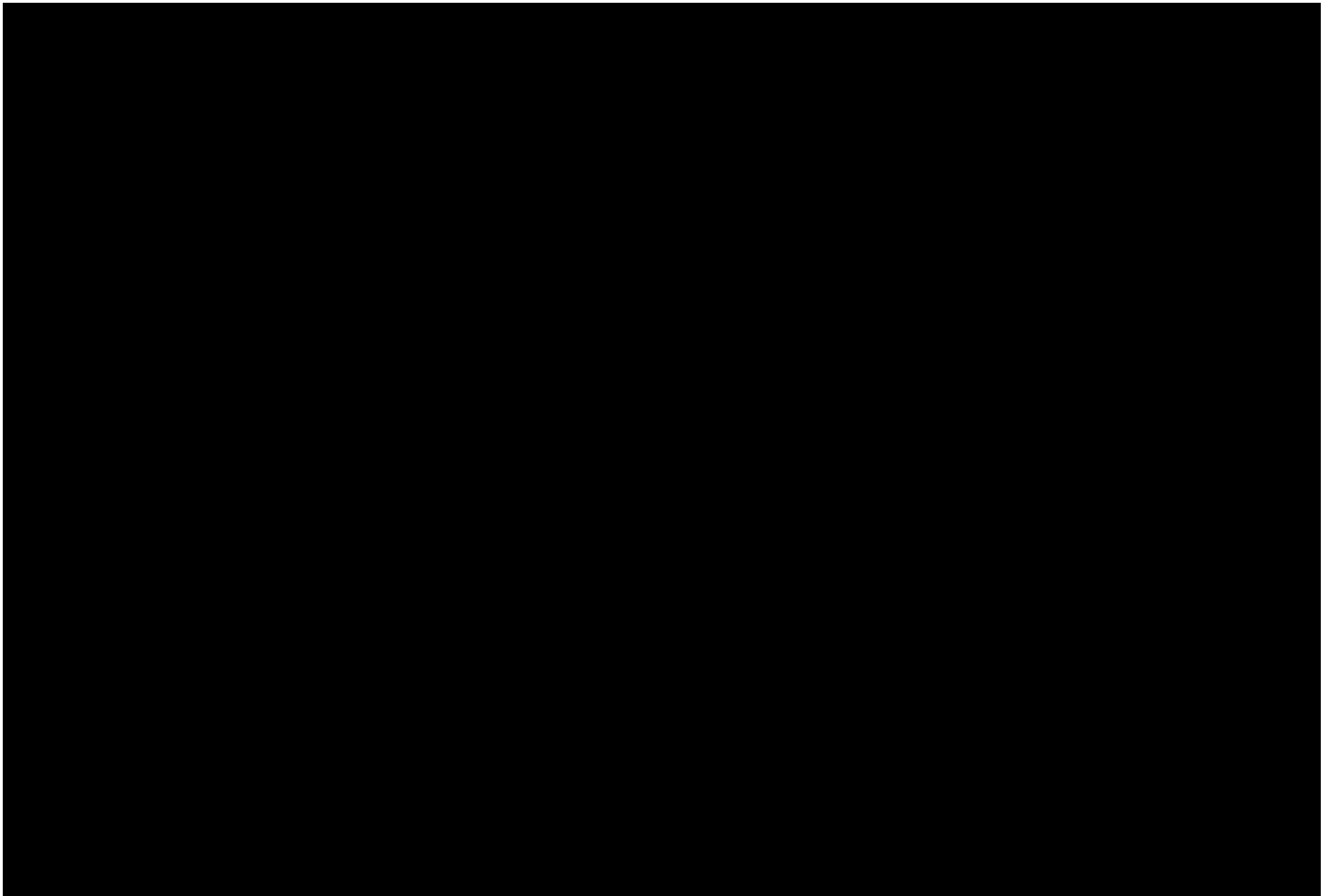


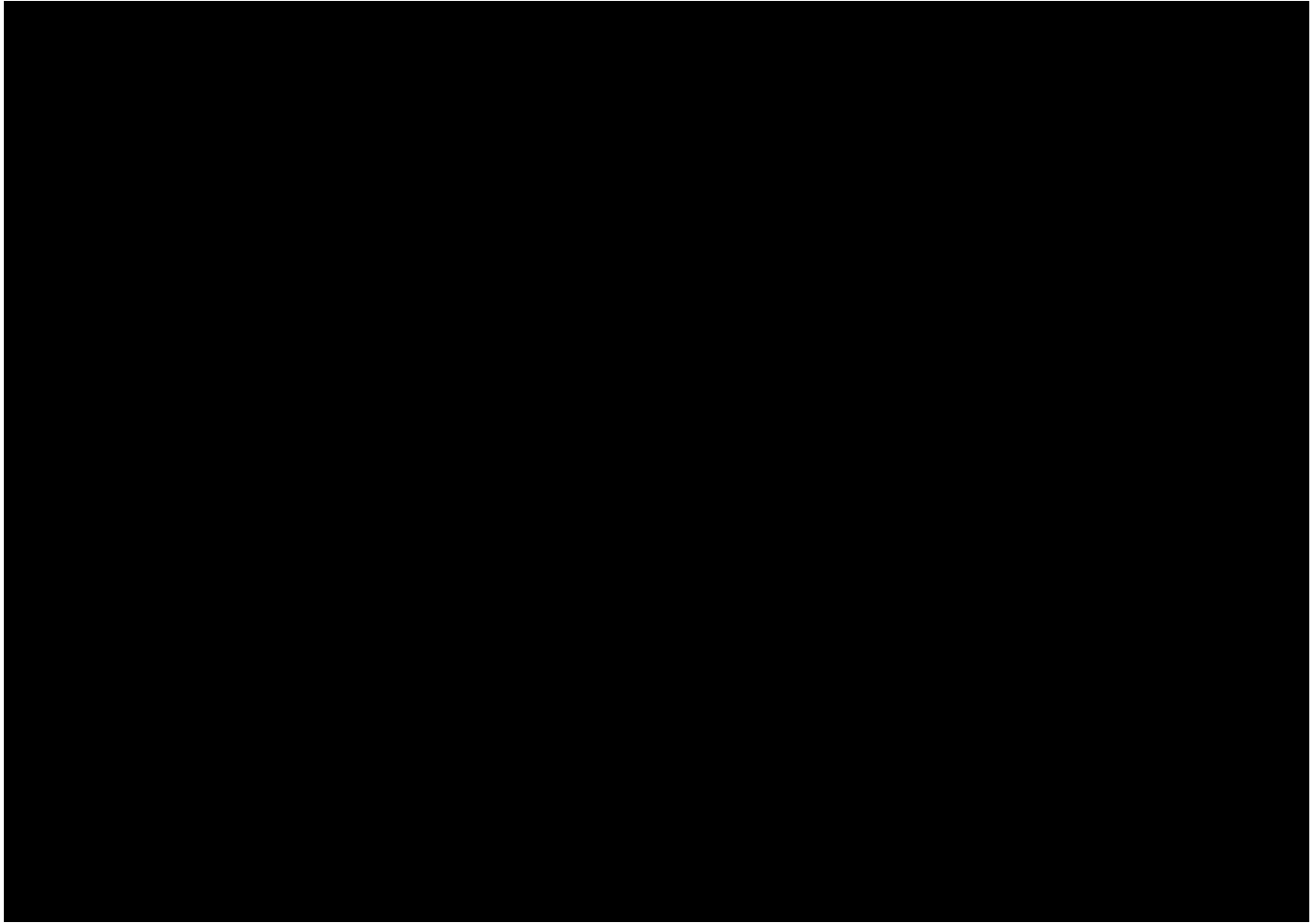


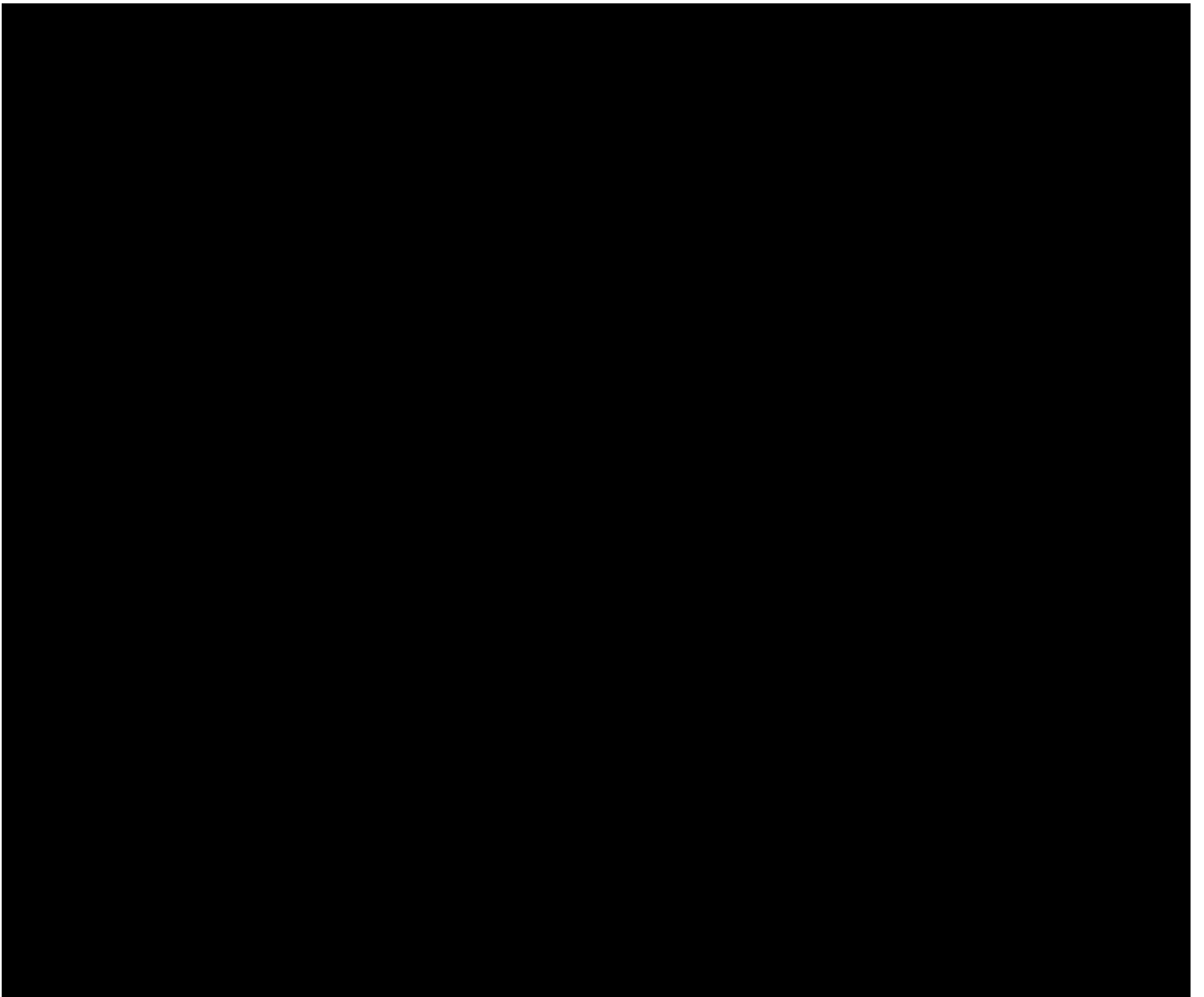
COURSE DESCRIPTIONS & AGENDAS

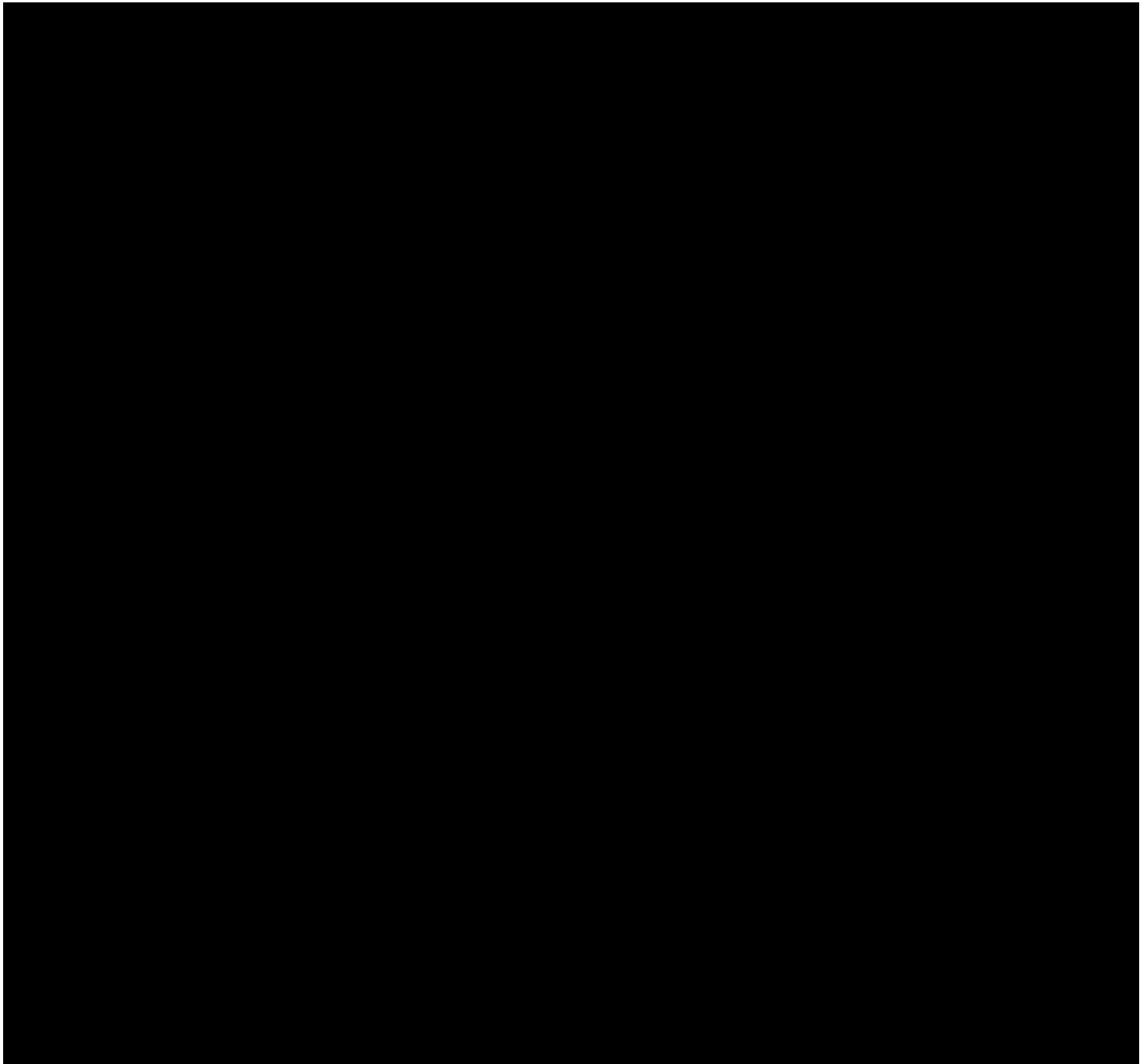
The County PPS, CSD, BMD, EMS (Media Burn & Reporting), and EPoll training course descriptions and training agendas are as follows:

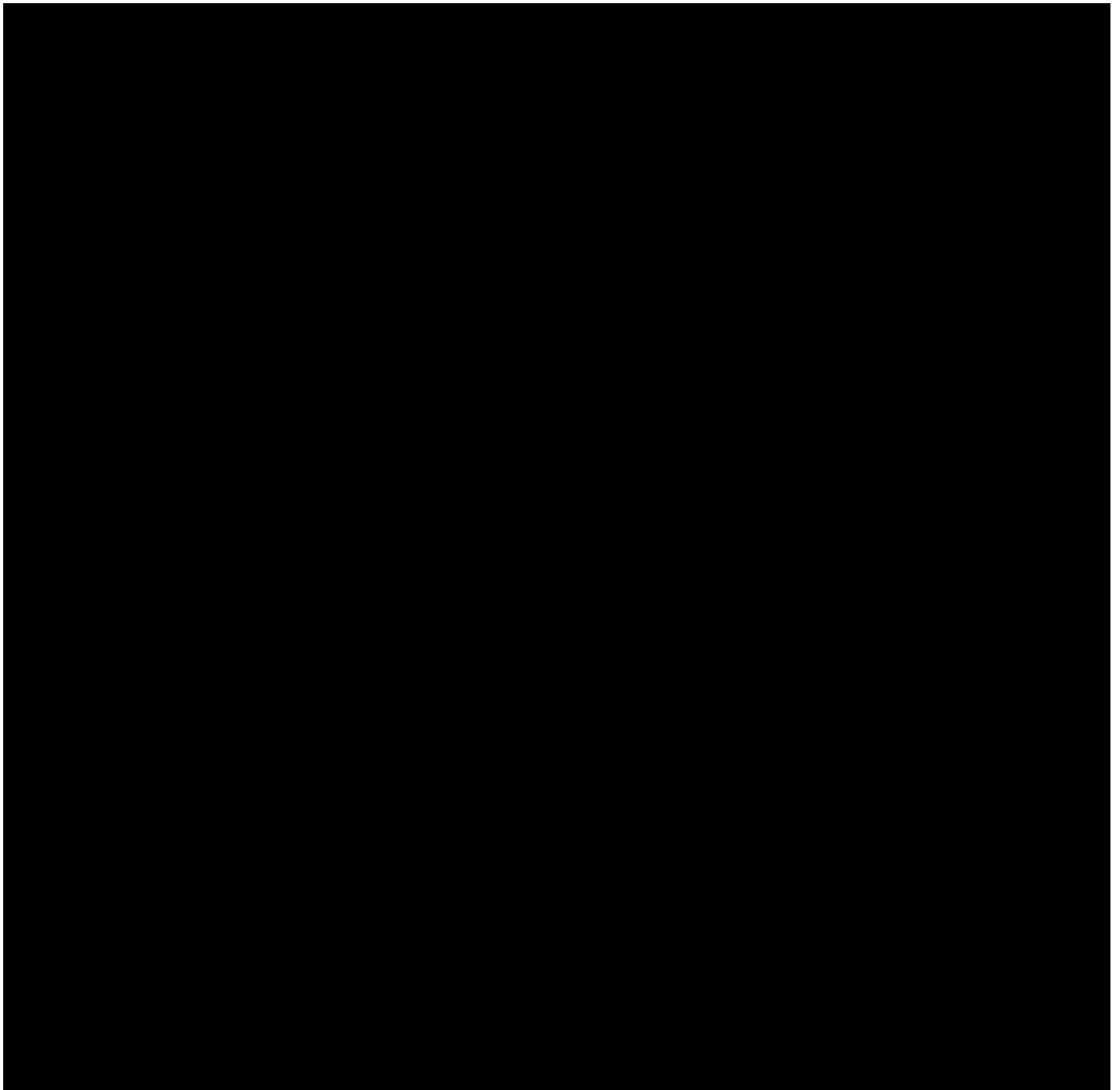


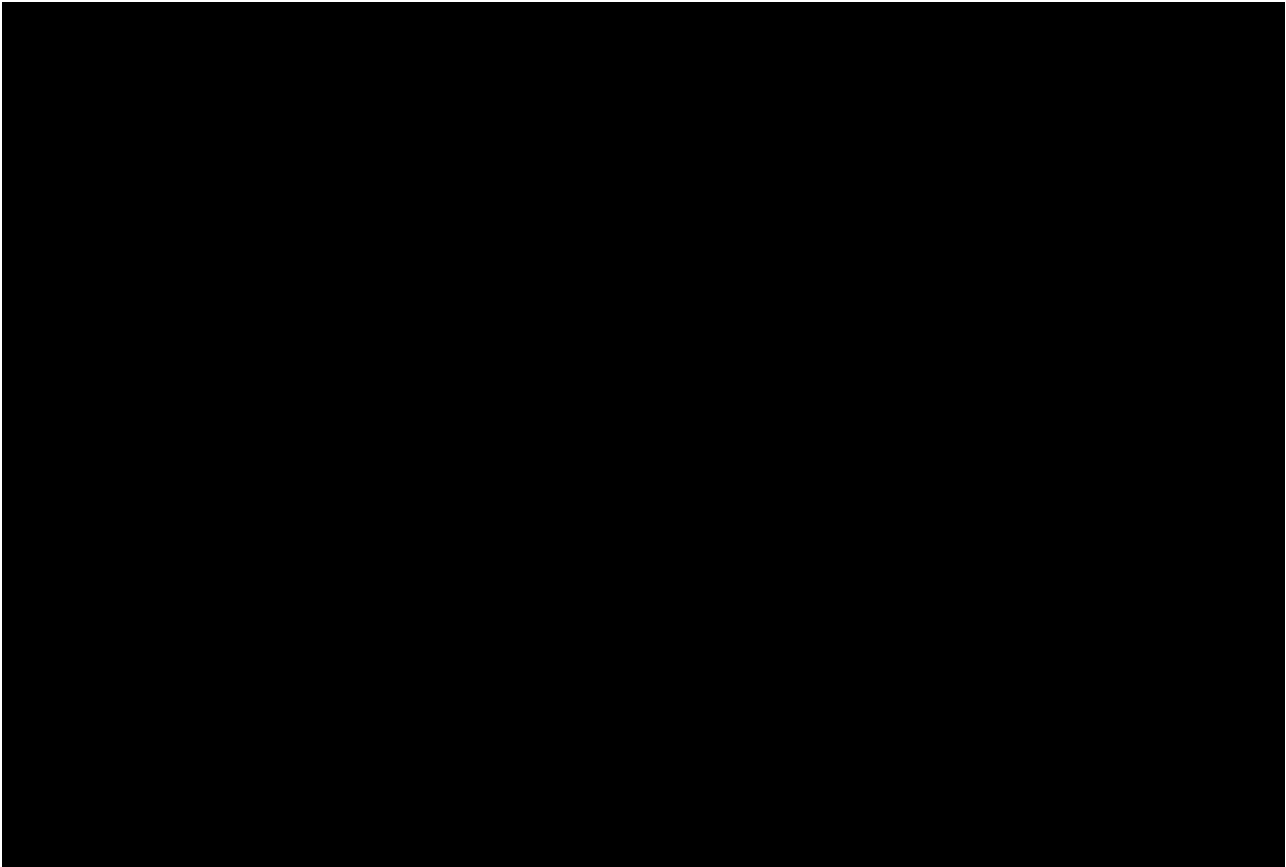


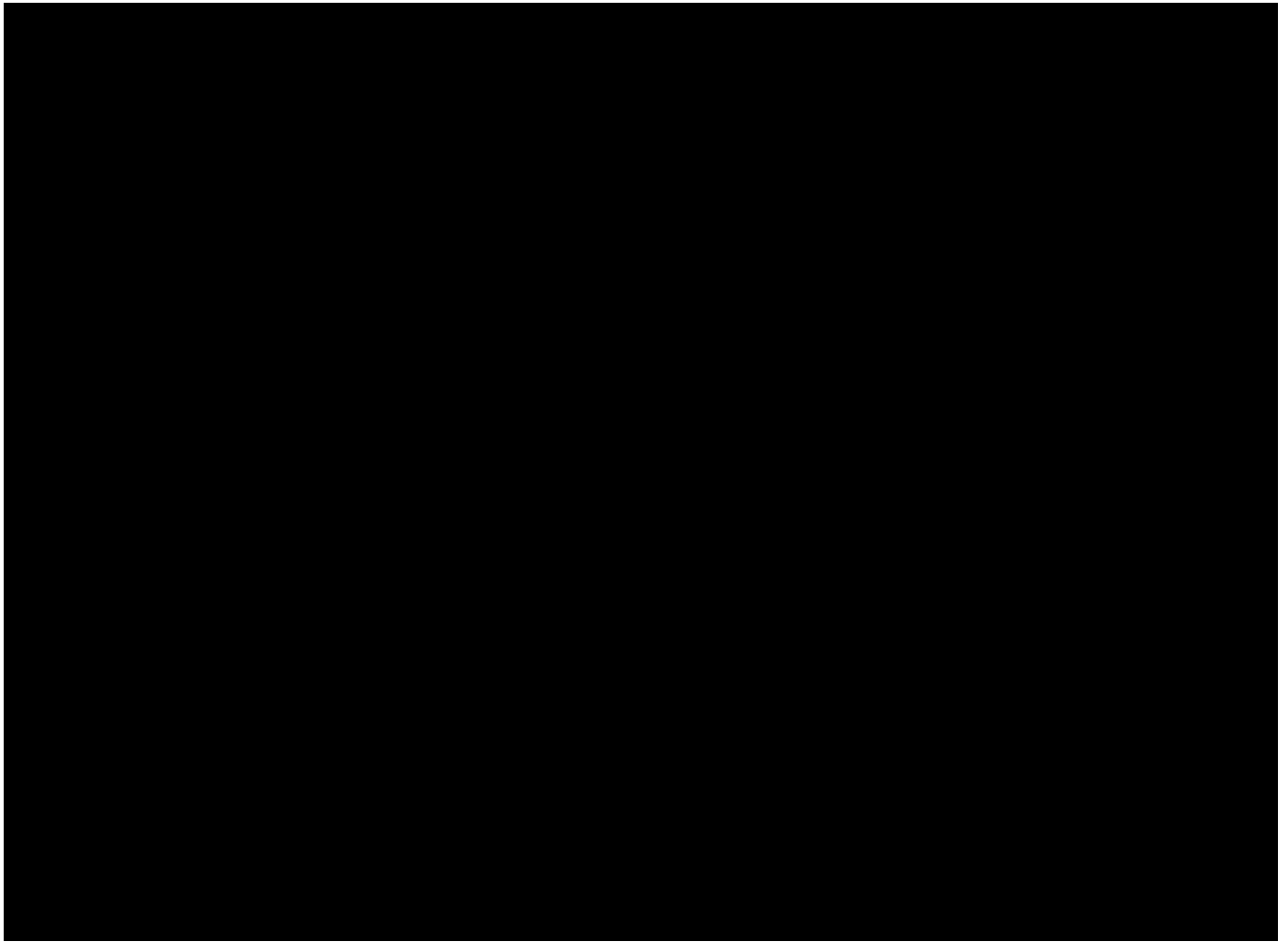










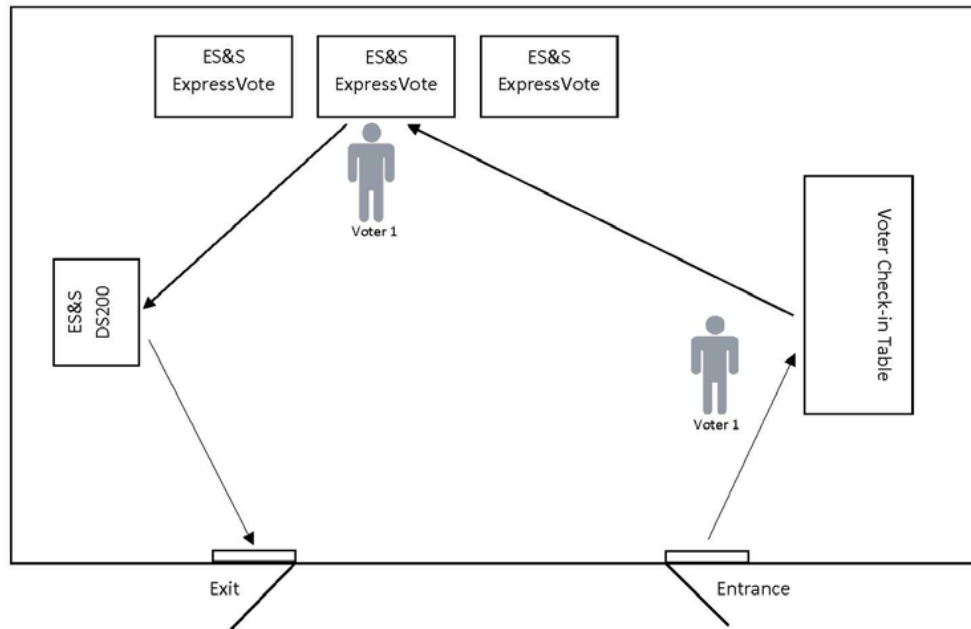


LAYOUT DIAGRAMS

Please see the below diagrams for Advance-In Person and Election Day voting setup.

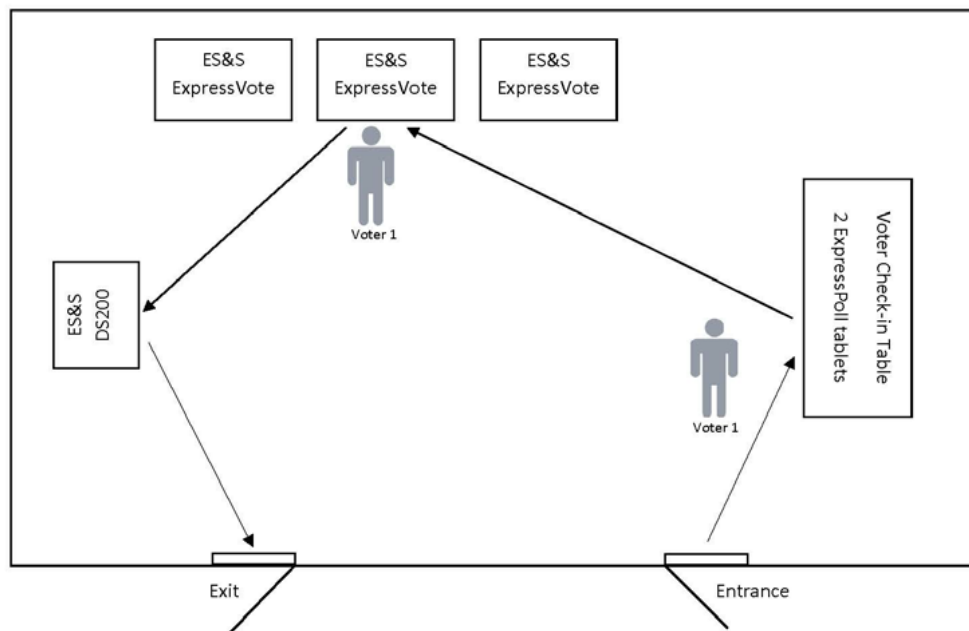
Advance-In Person Layout DS200 & ExpressVote Voter/ADA

**Layout can vary*



Election Day Layout ExpressPoll, DS200 & ExpressVote Voter/ADA

**Layout can vary*



#10.2

Questions:

Provide a training plan and documentation to each county elections office on, at minimum, the following:

1. Loading prepared election database to EMS.
2. Setting amount of Absentee by Mail scanning, Absentee In-Person voting, Election-Day use, and Provisional scanning equipment in EMS to be used for a given election.
3. Viewing and printing pre-election proofing reports from EMS.
4. Preparing necessary election media from EMS for use in the proposed PPS, CSD, and BMD.
5. Preparing and testing equipment for Absentee by Mail scanning, Absentee In-person voting, Election Day use, and Provisional scanning.
6. Configuring and sealing equipment for Absentee by Mail scanning, Absentee In-person voting, Election Day use, and Provisional scanning.
7. Absentee In-Person voting equipment opening and closing procedures (PPS, BMD, EPoll).
8. Election Day equipment opening and closing procedures (PPS, BMD, EPoll).
9. Polling scanning procedures.
10. Central scanning procedures.
11. Transitioning equipment from Absentee In-person voting use to Election Day use.
12. Basic equipment troubleshooting, while in use.
13. Removing and securing collected ballots and removable media.
14. Recovering archived data from internal memory (PPS, EPoll, and CSD).
15. Uploading removable media to EMS.
16. Producing tabulation reports from EMS.
17. Generating export files from EMS for Election Night Reporting (ENR).
18. Preparing post-election documentation from EMS.
19. Preparing finalized copy of election results from EMS for delivery to GASOS for certification.
10. Conducting recounts.
21. Conducting post-election audits.
22. Proper storage and maintenance of all SVS components.

Clarification Questions:

Per the Questions and Answers Suppliers were requested to provide a high level in depth training plan and documentation for GASOS staff on the setup and use of the proposed EMS in creating and configuring election databases for use in Georgia elections and primaries. In reference to: Section I. Implementation Plan of the Background and Scope of Work: Phase 1 will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.

Phase 2 will be broken into two parts. Phase 2 – Part 1 will be distributing a minimum of five (5) BMD, two (2) PPS, and one (1) EMS computer to each county (159). These components will facilitate election official and poll worker training activities. Phase 2 – Part 2 will be the full distribution of all equipment to the counties including

training. Phase 2 – Parts 1 and 2 will begin after the distribution of equipment to the counties participating in the scheduled pilot project in November 2019.

Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019).

Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).

CLARIFICATION RESPONSE:

Original Response:

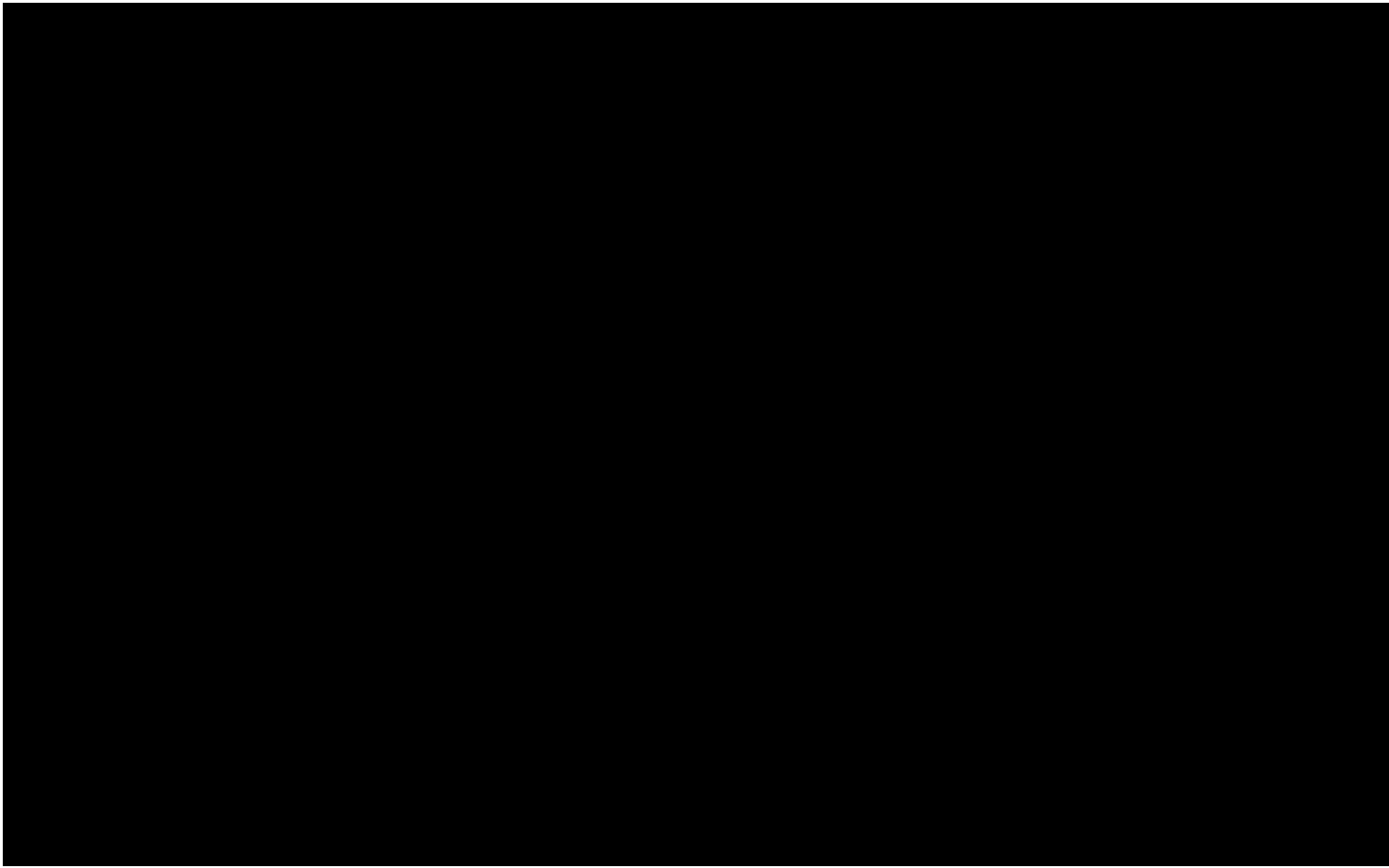
Our ES&S Instructional Design team has developed a comprehensive series of training documentation including Administrator, Poll Worker, and Troubleshooting Guides. Our goal with these training materials is to provide your election staff with easy-to-follow operating procedures to refer to after the classroom training has concluded. This approach to our customized manuals allows your election staff to be fully prepared and ensures autonomy in election operations while using our equipment. Additionally, ES&S will address the development of training for post-election audits based on the State's auditing requirements.

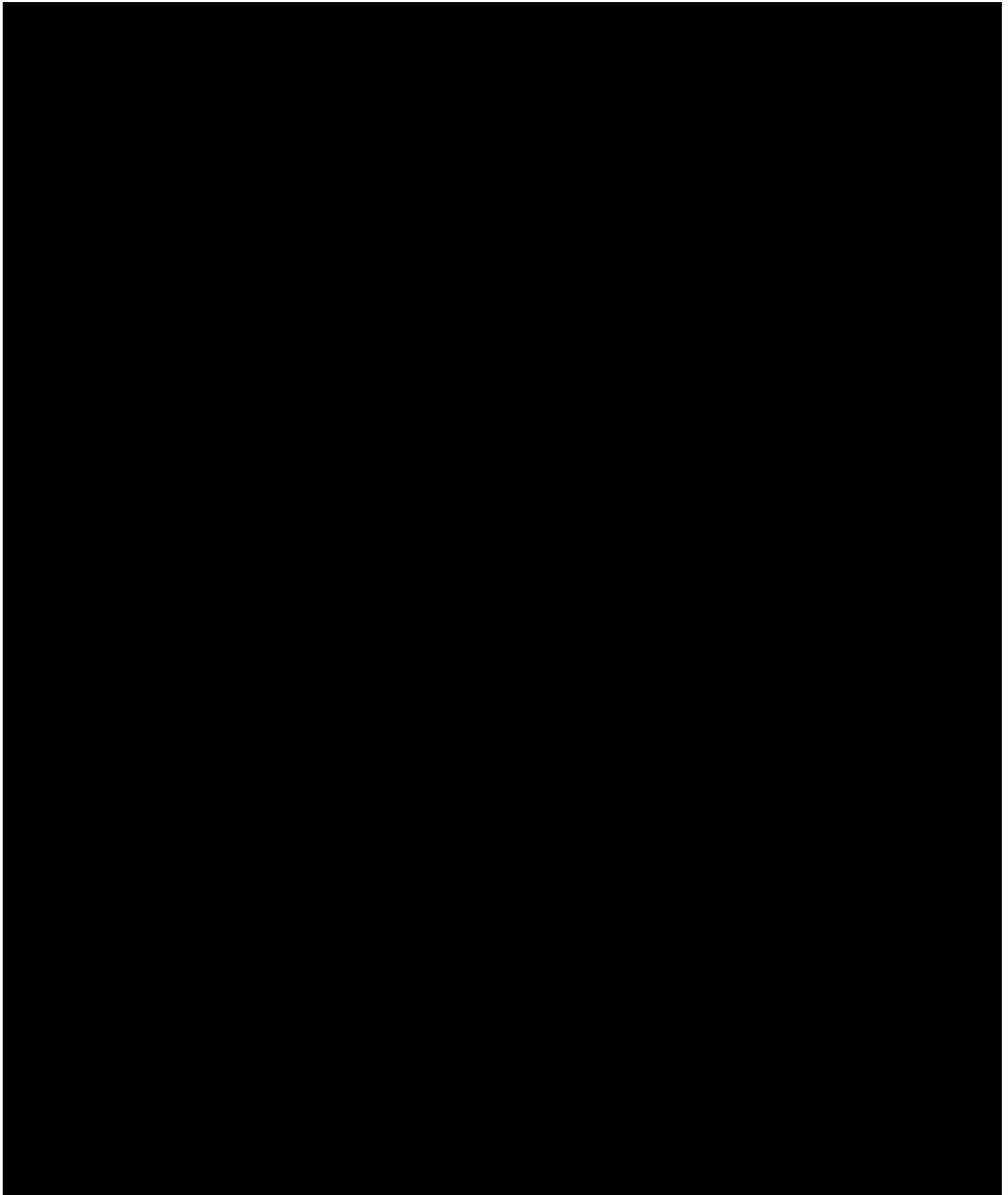
All of the above topics are covered within the written documentation attached. These manuals will also be provided during each training session.

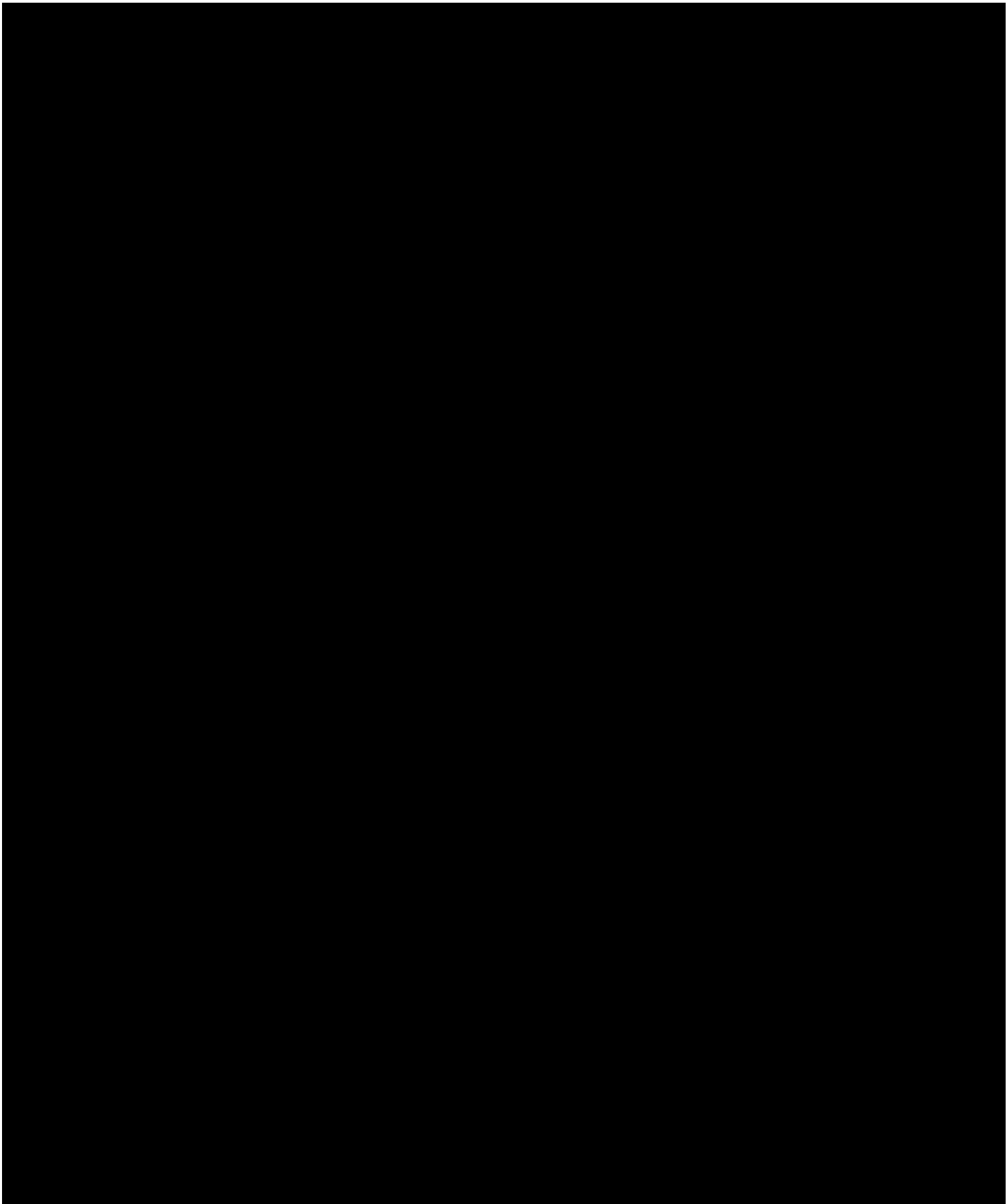
Clarifying Information:

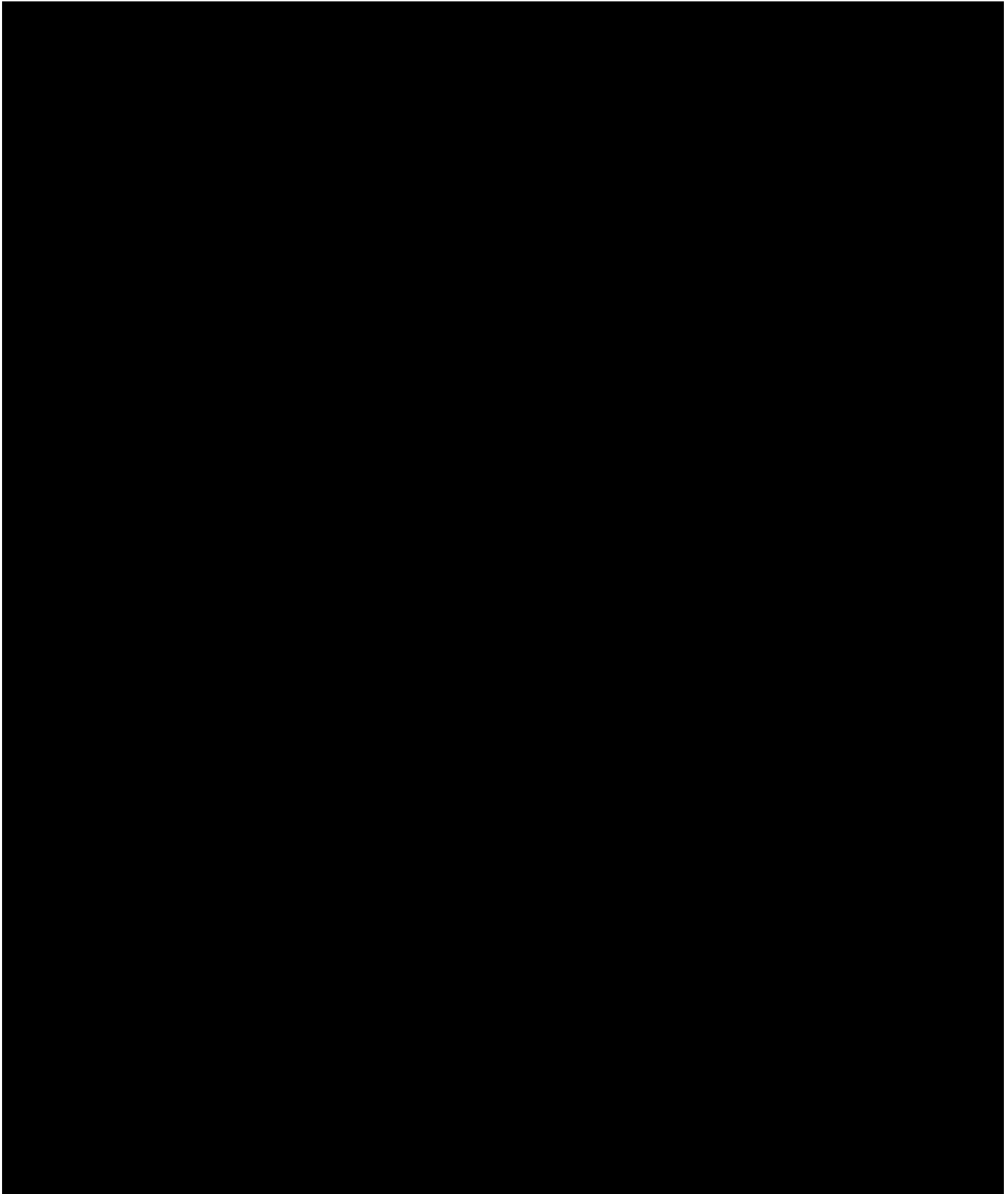
PROPOSED TRAINING PROJECT PLAN

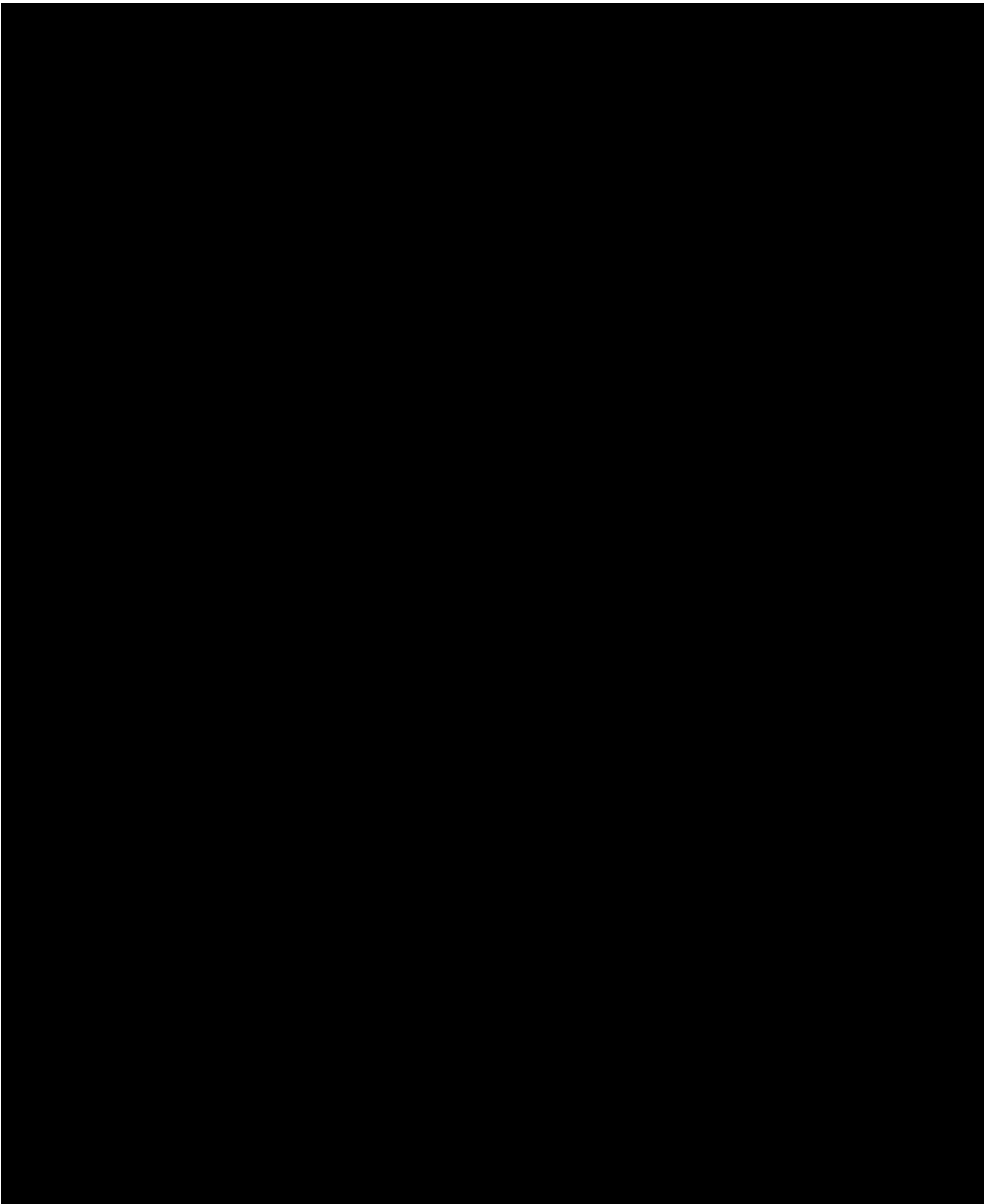
ES&S proposes that all PPS, CSD, BMD, EMS, EPoll, and EPDMS training for County election staff be conducted during two Implementation Phases, as outlined in the submitted Project Plan. The County training components of the Project Plan are as follows:

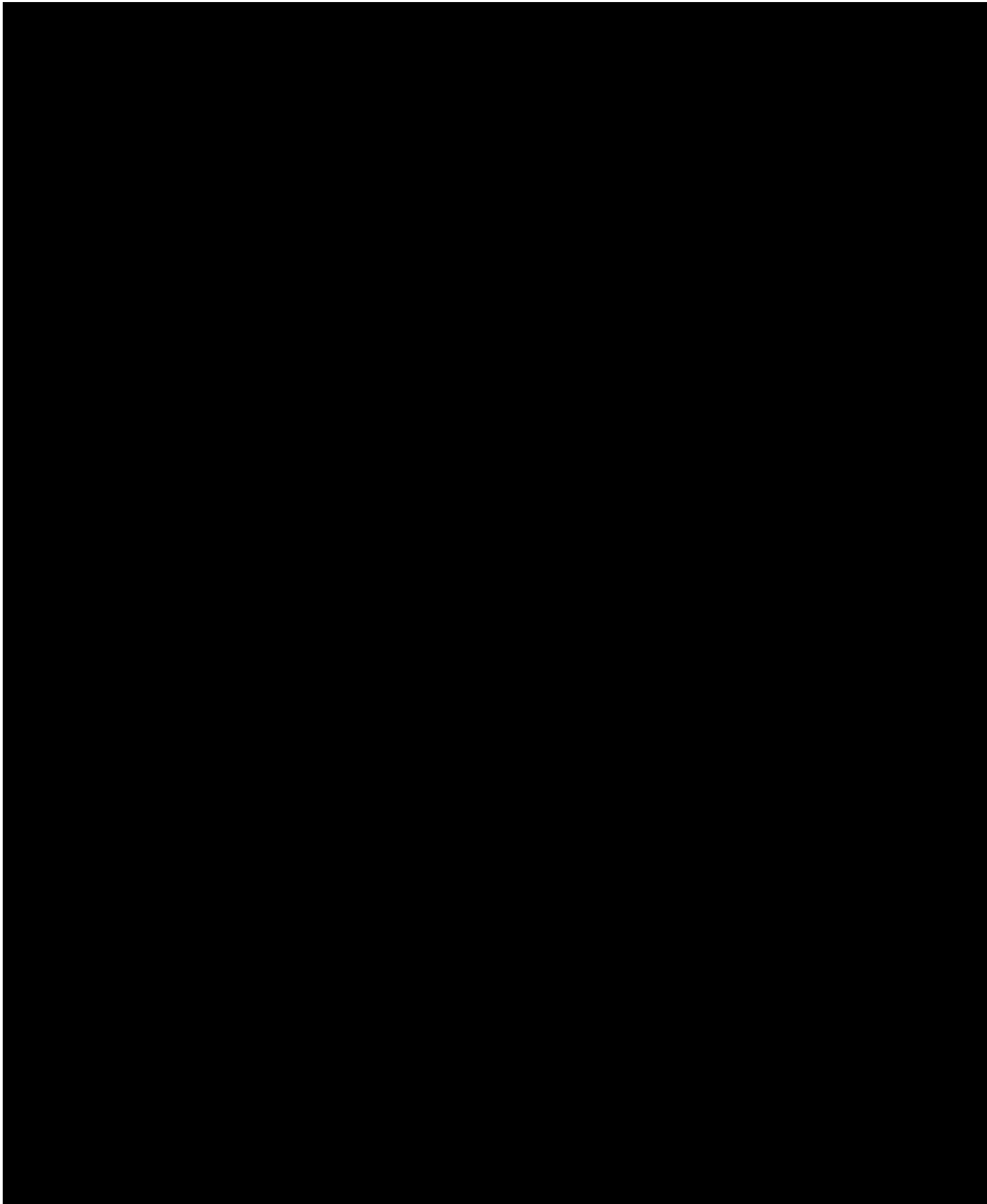


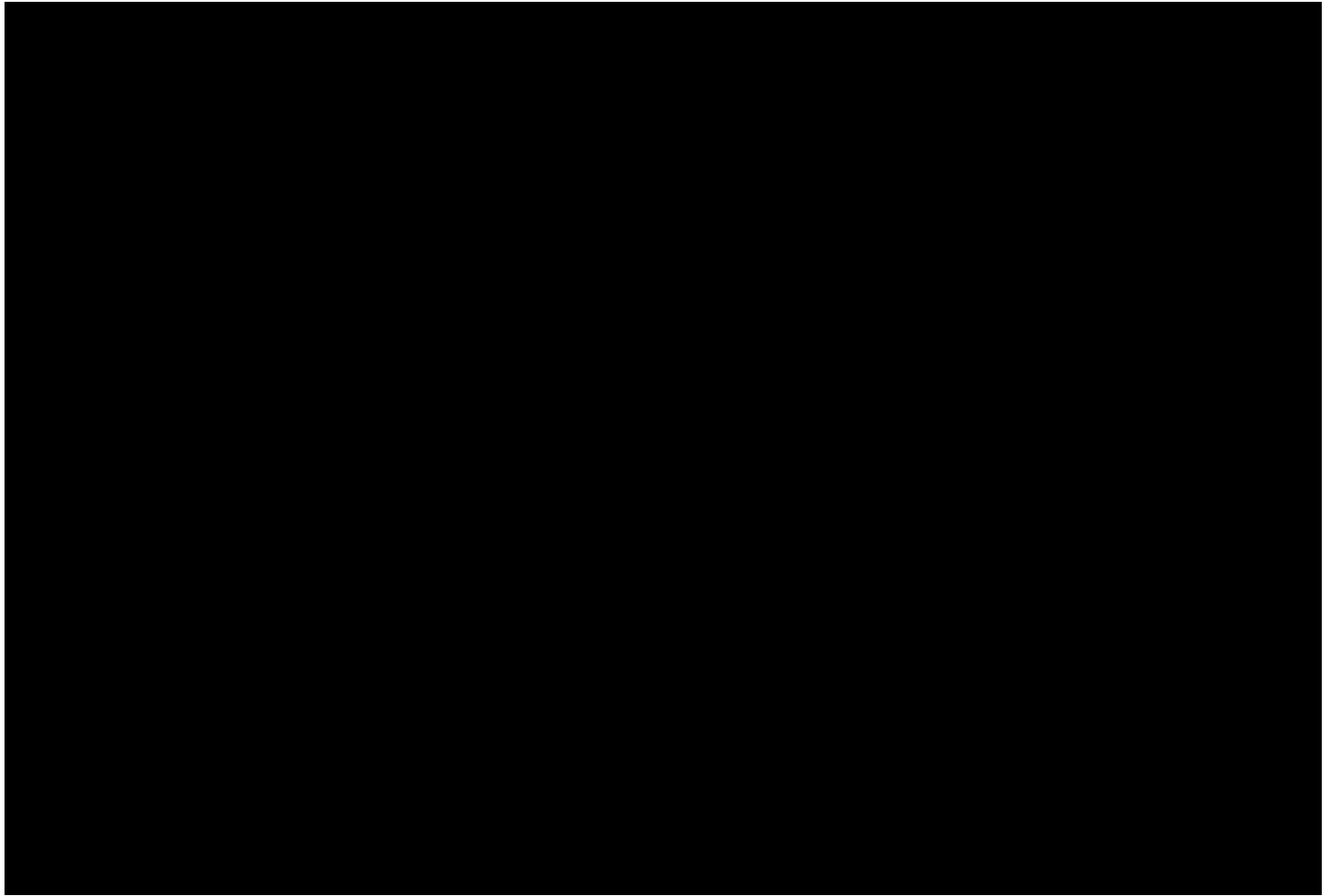






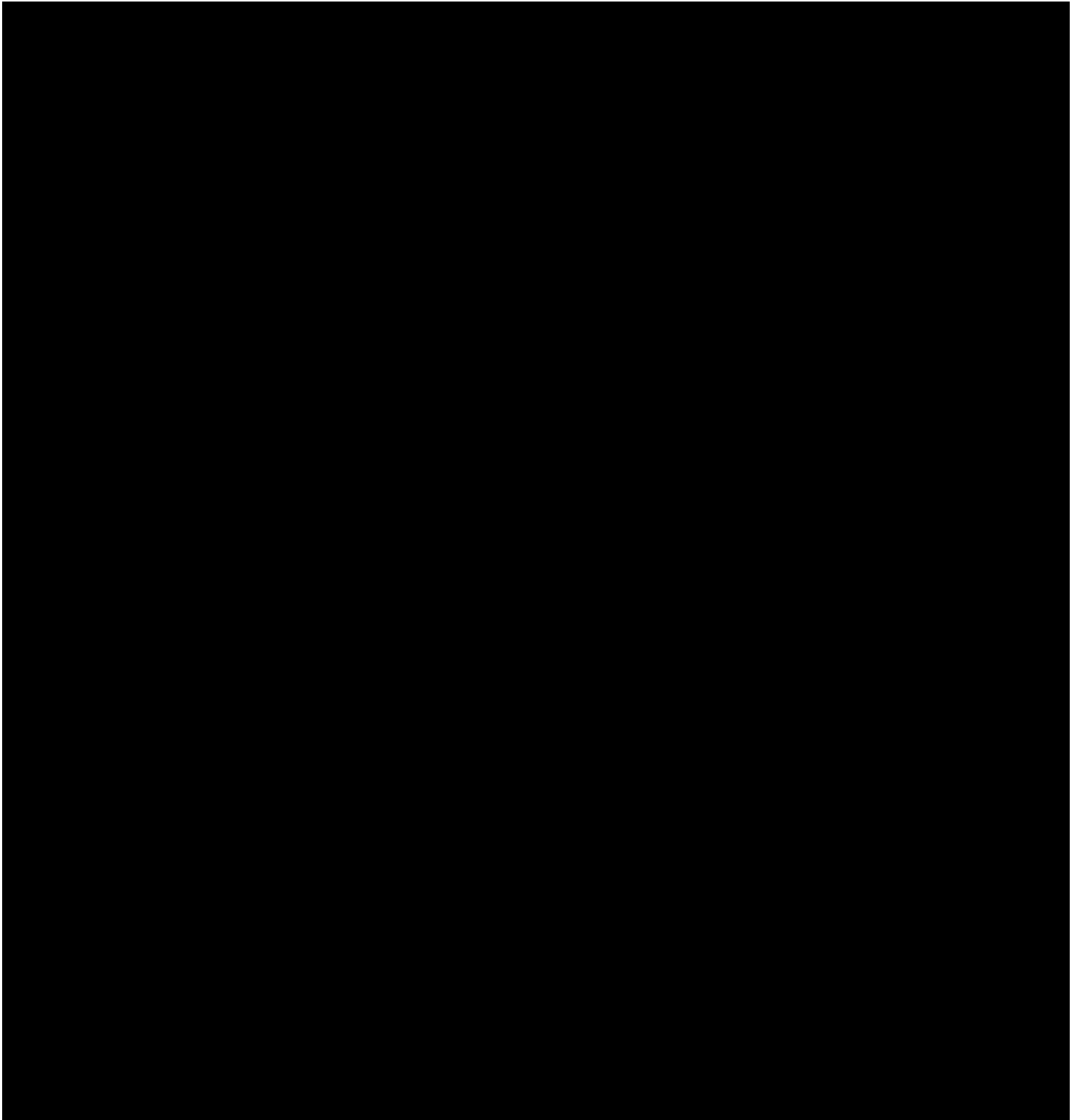


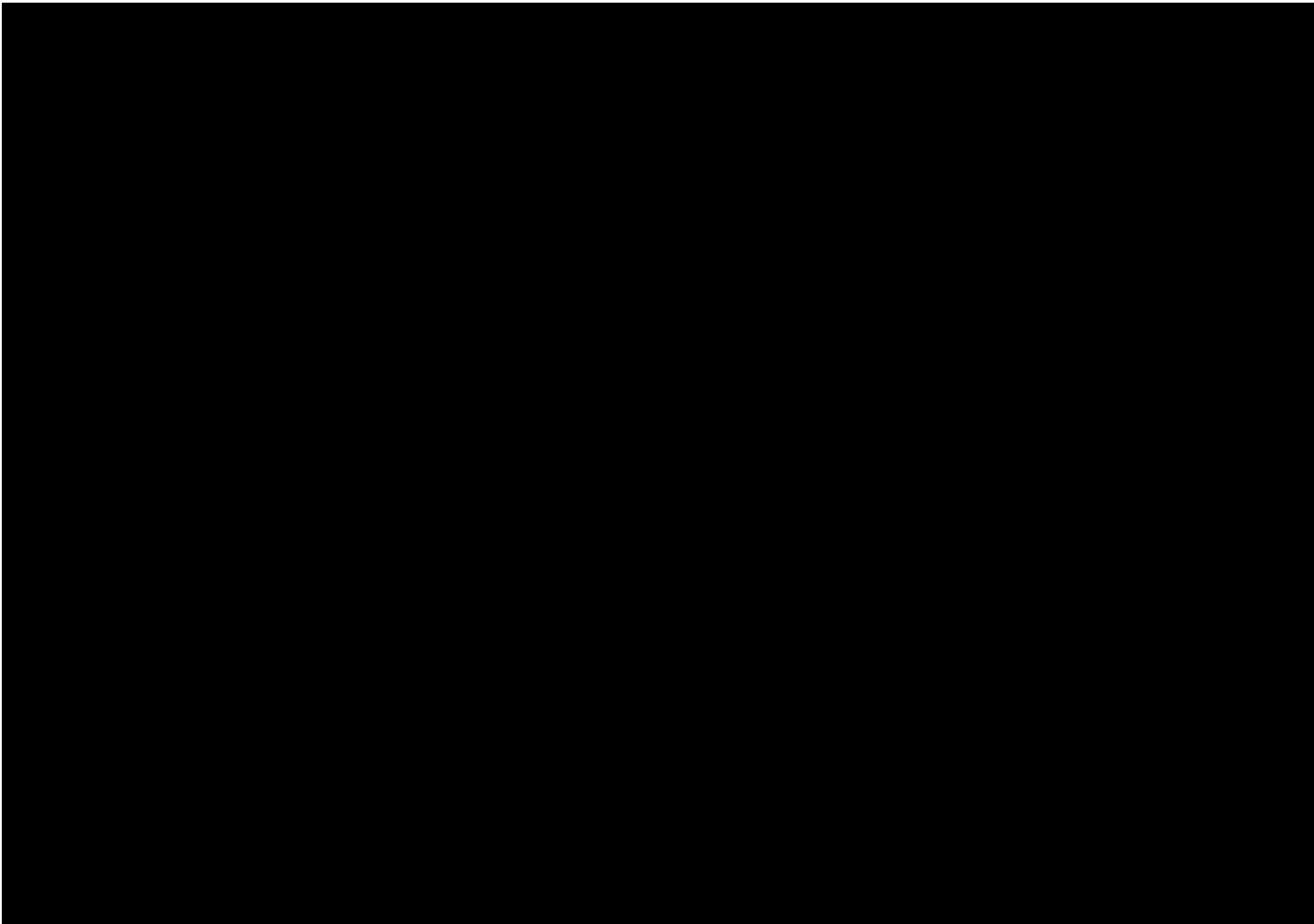




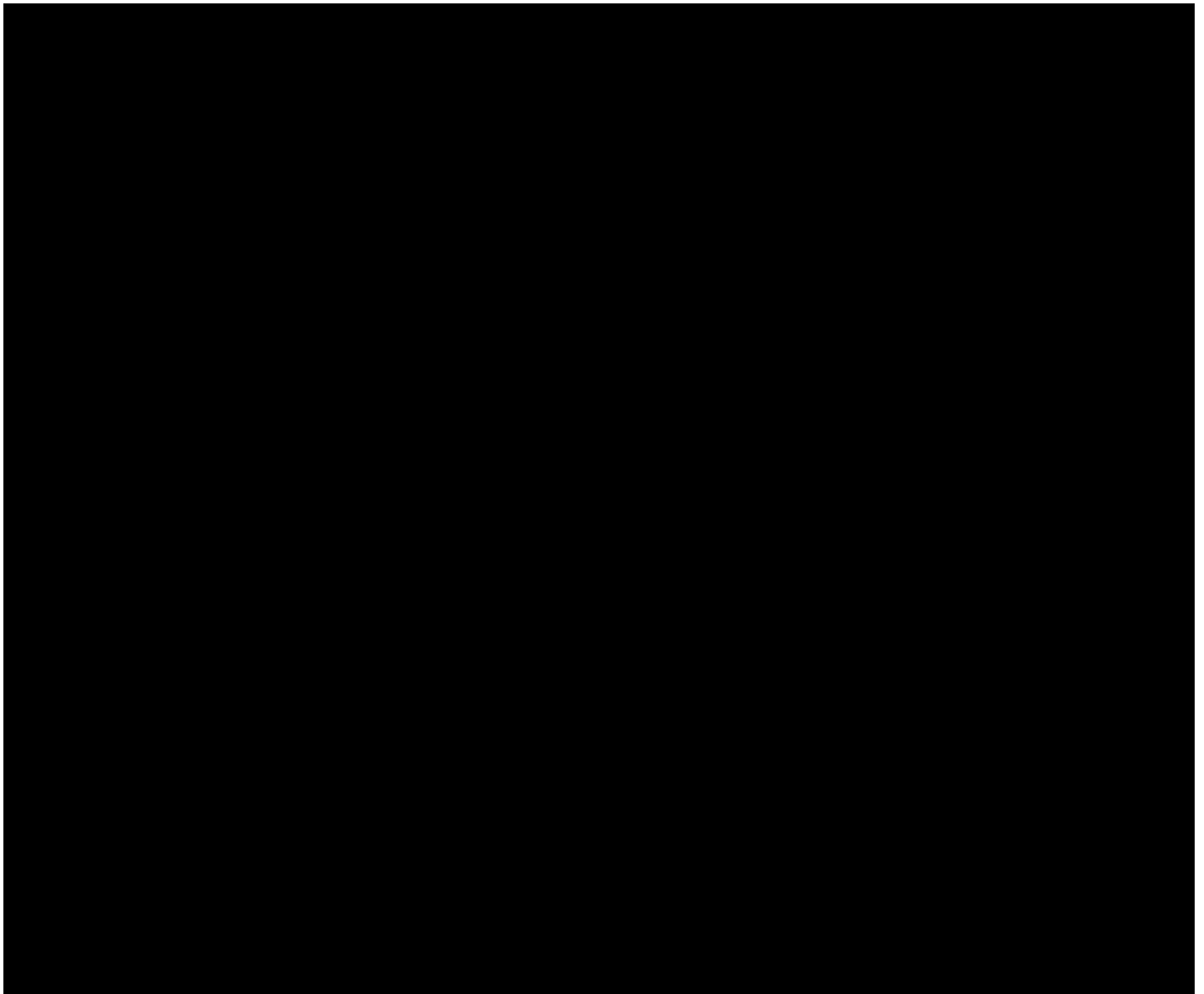
COURSE DESCRIPTIONS & AGENDAS

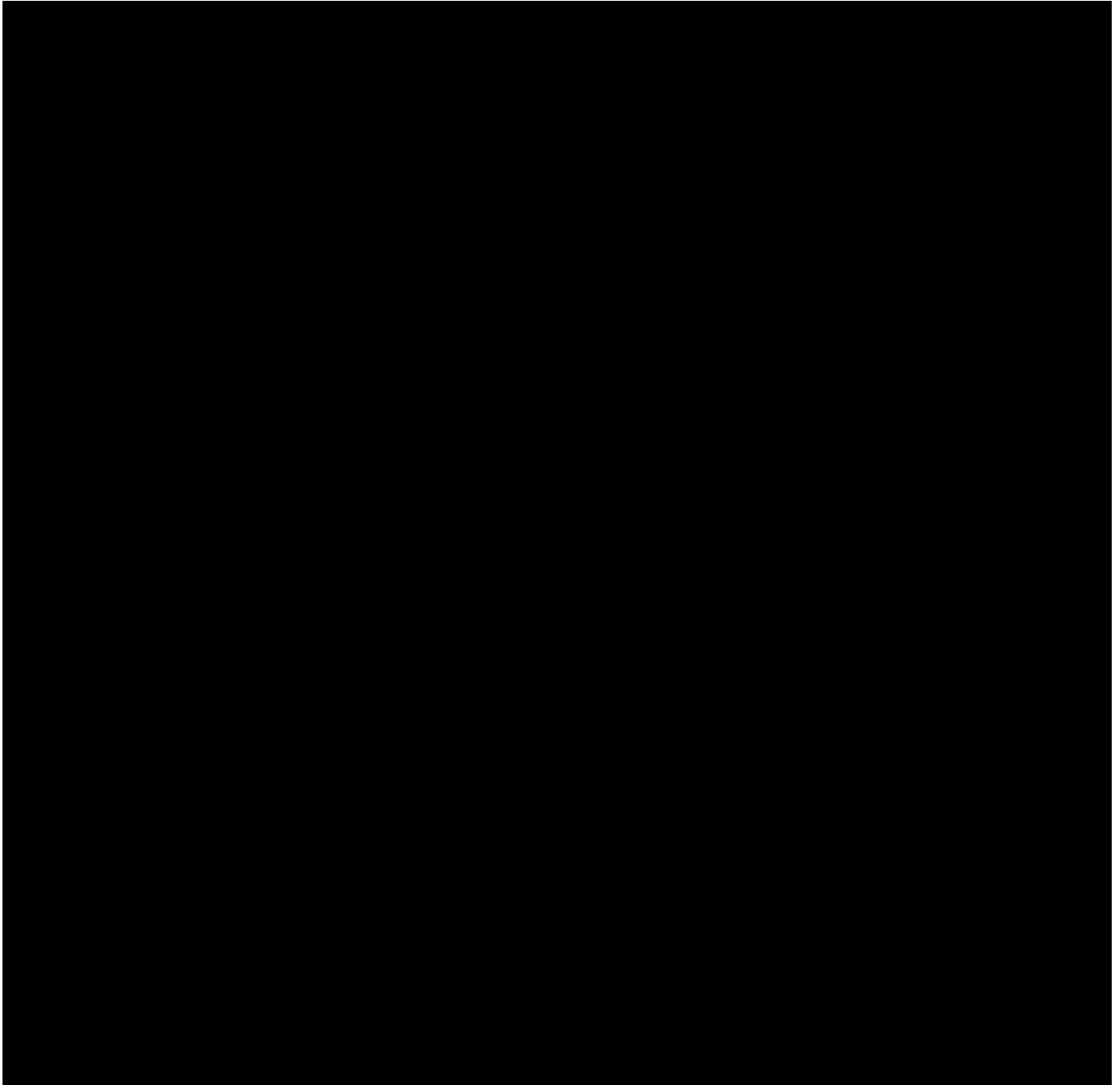
The County PPS, CSD, BMD, EMS (Media Burn & Reporting), and EPoll training course descriptions and training agendas are as follows:

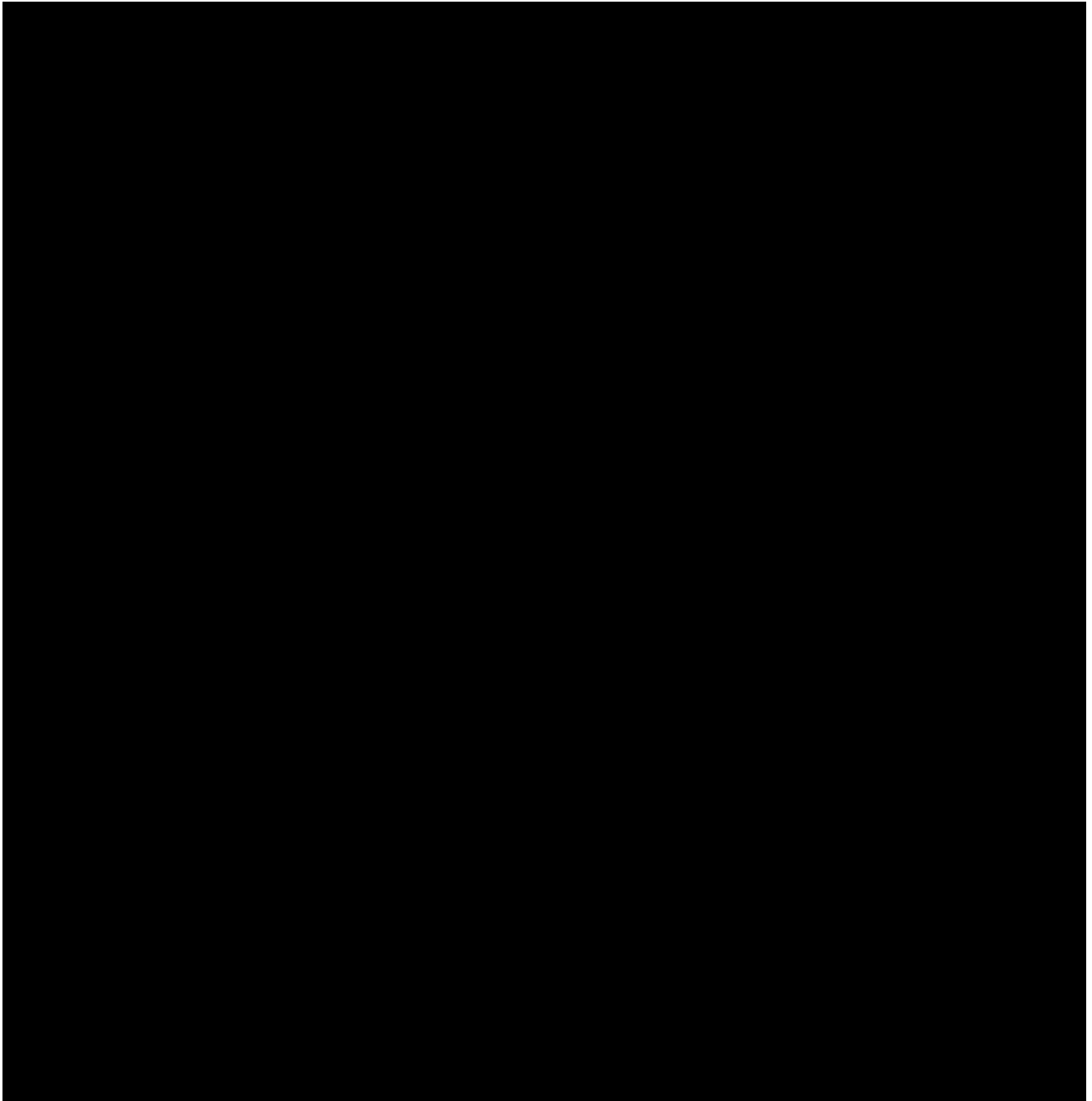


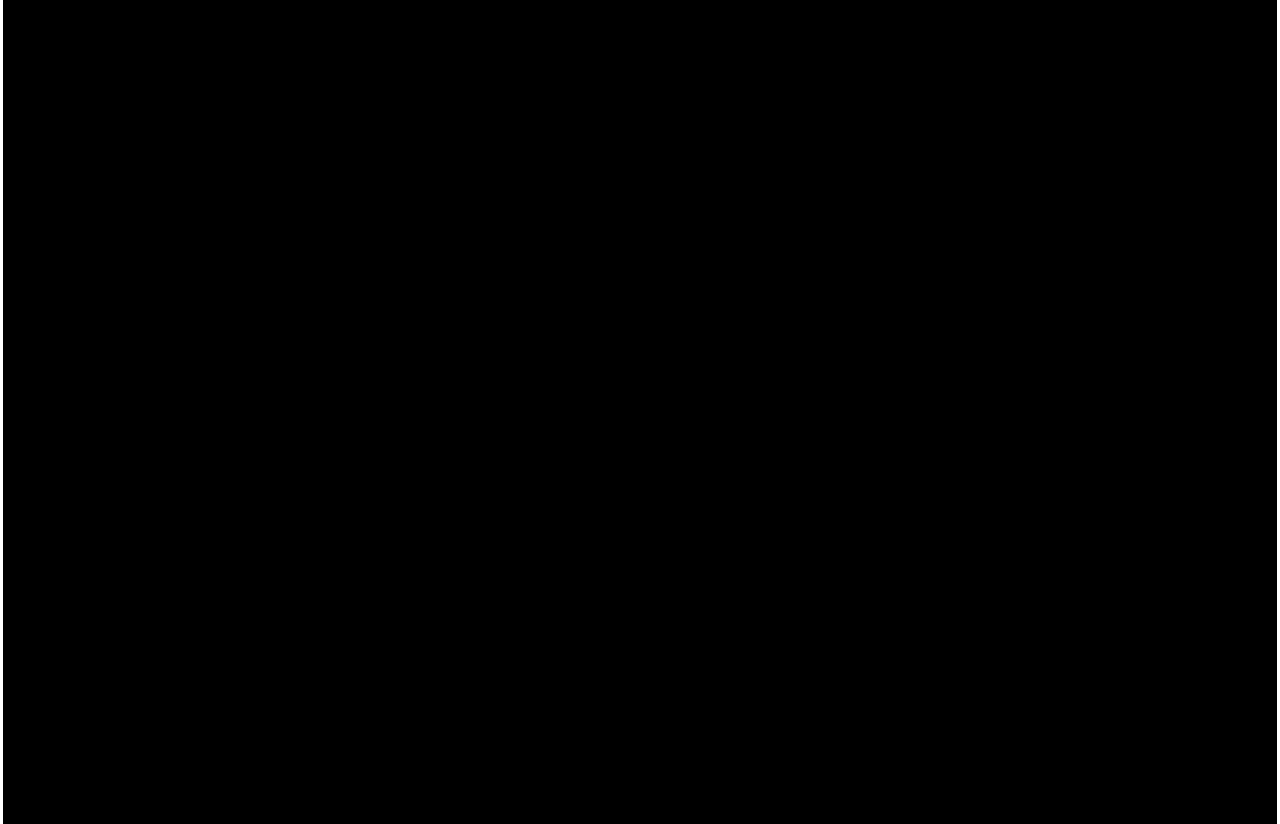


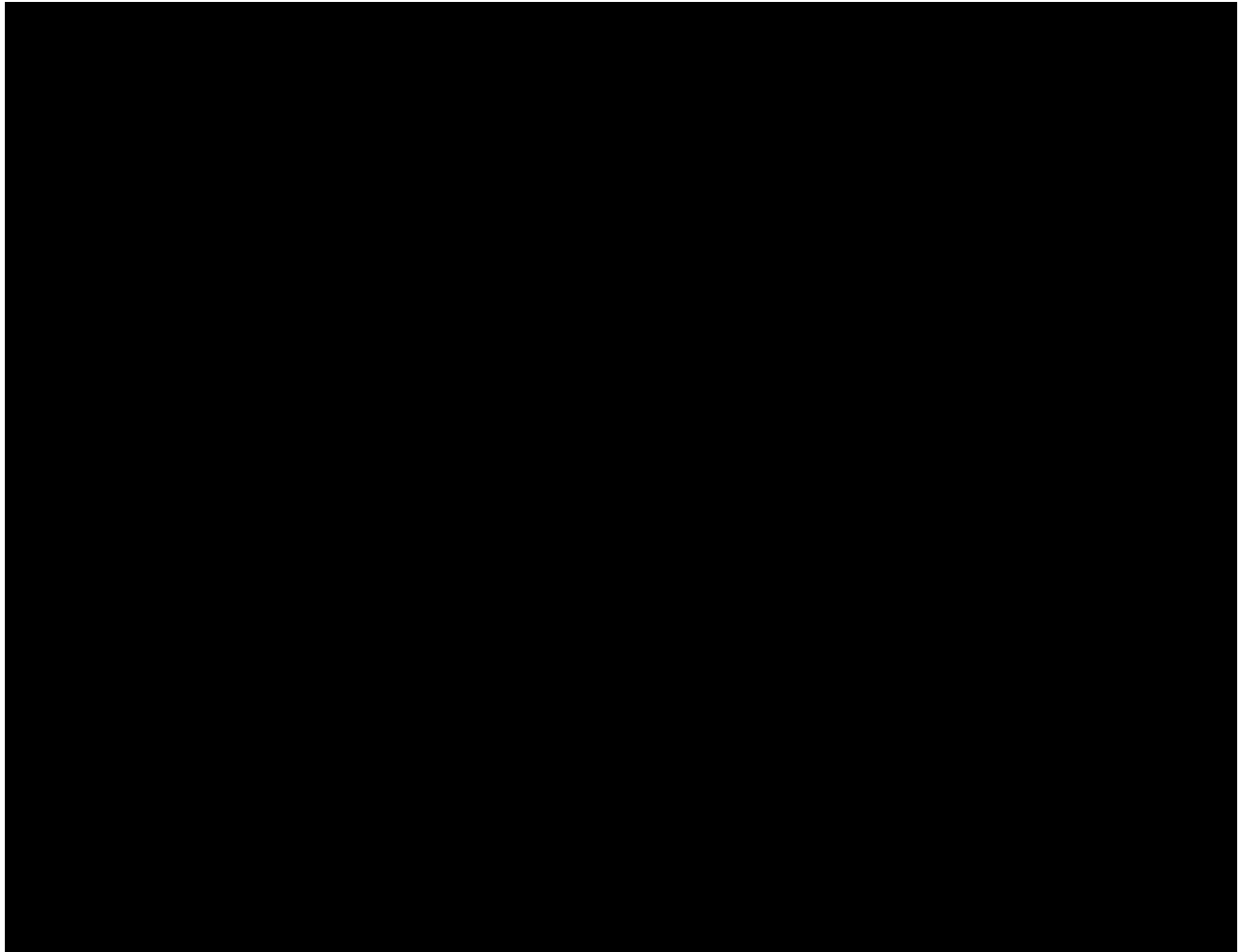






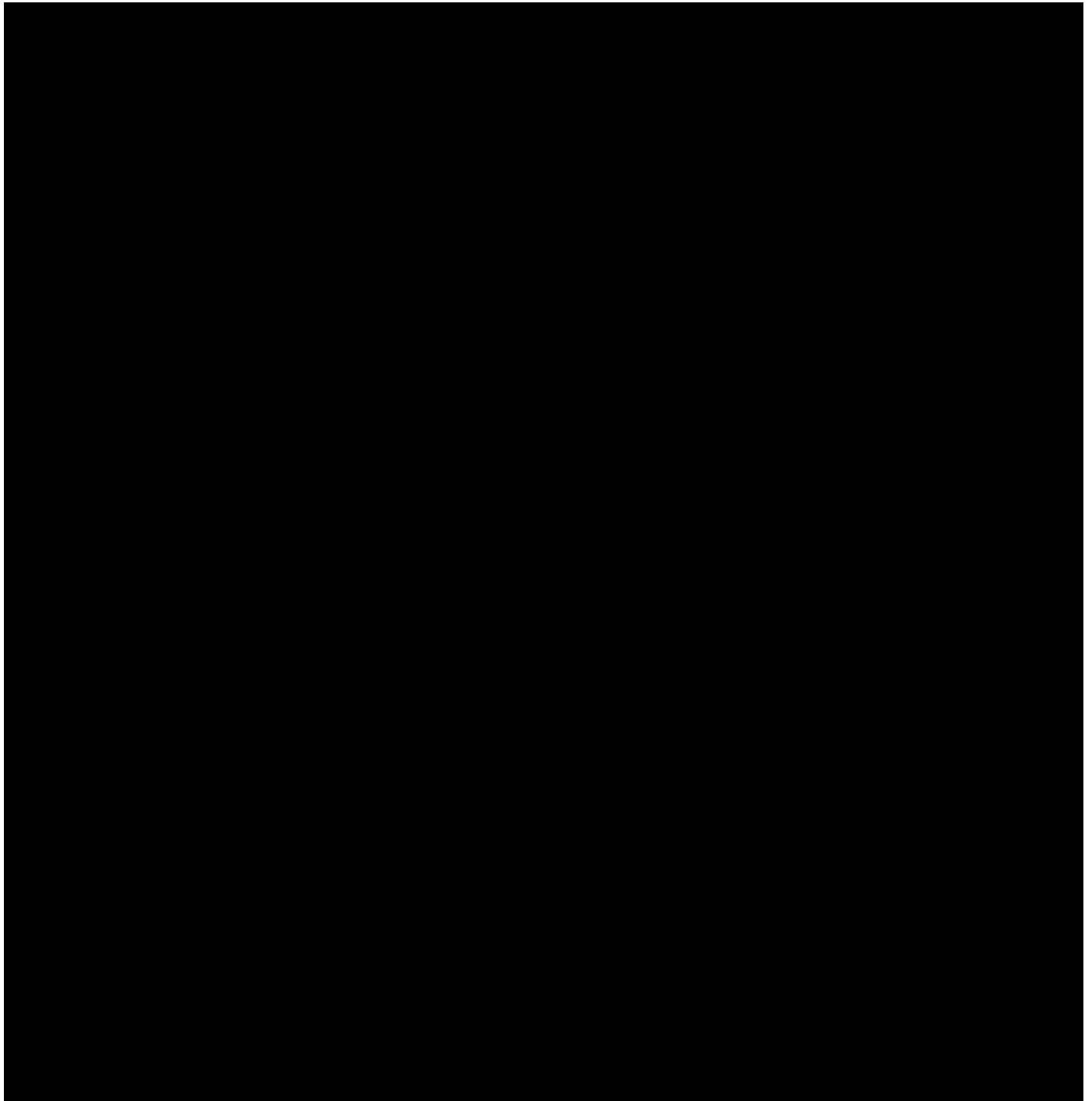






TRAINING DOCUMENTATION

ES&S has outlined the documents that contain the requirements provided by GASOS. ES&S has provided the training course documentation for all county training courses as Attachment A. The Operator's Guides mentioned below will be provided during equipment delivery.



#12.4

Questions:

Provide a roll-out plan for deploying all components of the proposed SVS to the GASOS for up to 10 local jurisdictions for use in November 2019 elections by August 1, 2019. Reference Attachment O Potential Equipment Distribution.

Clarification Questions:

Please describe the dependencies and assurances to meet the commitments proposed for: Phase I will be the full inventory distribution and necessary training of up to ten (10) counties selected by GASOS to participate in a

pilot project to be executed in November 2019. The pilot equipment will be used in any associated November 2019 election scheduled for the selected counties.

CLARIFICATION RESPONSE:

Original Response:

Please see the included Project Plan.

Clarifying Information:

ES&S is fully committed to meeting the PHASE 1: AUGUST 1, 2019 deadline set forth by the GASOS in the RFP.

Dedicated resources both onsite in the State of Georgia and remotely are committed to the completion of the Phase 1 Pilot equipment delivery, acceptance, and training to ensure a successful first use in the November 2019 election.

Equipment Delivery, Pre-Installation/Setup, Acceptance, and Distribution:

Implementation Phase 1		
Tabulation Hardware	Fri 7/26/19	Fri 9/6/19
Hardware Delivery to Georgia Distribution Facility	Thu 8/1/19	Thu 8/1/19
Pre-Installation/Setup & Acceptance Testing	Thu 8/1/19	Fri 9/6/19
Conduct Pre-Installation/Setup on Voting System	Thu 8/1/19	Fri 8/9/19
Conduct Acceptance on Voting System	Fri 8/2/19	Fri 8/16/19
Sign-off on Delivery & Acceptance Testing	Fri 8/16/19	Fri 8/16/19
Tabulation Hardware	Mon 8/19/19	Wed 8/28/19
Stage & Prepare Hardware for Shipment to County Locations	Mon 8/19/19	Fri 8/23/19
On-site Delivery of Hardware @ County Locations	Wed 8/21/19	Wed 8/28/19

EMS Delivery and Acceptance:

All EMS deliveries to the GASOS distribution facility will be completed by August 1st, 2019.

EMS Workstation	Mon 7/8/19	Fri 9/20/19
Order EMS Hardware/Software	Mon 7/8/19	Mon 7/8/19
Stage & Prepare EMS Workstation	Mon 7/15/19	Thu 7/18/19
Ship Hardware to GASOS & Georgia Distribution Site	Tue 7/30/19	Thu 8/1/19
On-site Delivery of EMS Workstation @ GASOS	Thu 8/1/19	Thu 8/1/19
Sign-off on Delivery & Acceptance Testing for GASOS & County EMS	Mon 9/9/19	Thu 9/19/19
Ship Hardware to County Sites	Tue 9/10/19	Thu 9/19/19
On-Site Delivery of EMS Workstation @ County Locations	Tue 9/17/19	Fri 9/20/19

DEPENDENCIES

- ✔ Contingent upon signing of contract for Statewide Voting System by July 1st, 2019.
- ✔ Availability of State of Georgia personnel for Acceptance of the Phase 1 pilot equipment to be completed by August 16th, 2019.
- ✔ Availability of all participating pilot counties to accept delivery of equipment by August 28th, 2019.
- ✔ Dependent upon the continuity of requirements outlined in RFP. Any changes to the requirements would necessitate approval through the Project Change Control Process, with agreement of all changes and potential impact on project timelines by all involved parties.

ASSURANCES

- ✓ Delivery dates for EMS systems are now scheduled to be delivered at an earlier date than in our original response.
- ✓ Additional time has been provided for State acceptance testing. Such testing is now scheduled to be done in parallel with ES&S pre-installation activities in preparation for the Phase 1 pilot. ES&S will adjust the proposed pre-installation and acceptance testing schedule to accommodate the schedule of the GASOS.
- ✓ ES&S has committed full-time employed Field Services resources to the distribution facility for the duration of the acceptance and distribution to meet the condensed timeline required for the November election.
- ✓ ES&S will have a dedicated distribution facility manager to coordinate the receiving of equipment. The facility manager will also be responsible for shipping to the individual counties once the acceptance testing is complete.
- ✓ ES&S Technical Services team will prepare and test all EMS workstations prior to shipping to the in-state distribution facility to accelerate the pre-installation/setup process.
- ✓ ES&S has dedicated resources to conduct any additional training for State Personnel in order to conduct acceptance testing for both tabulation and EMS systems.

Training:

All training for the Phase 1 pilot will be completed by October 3rd, 2019.

Training- Hardware & Software	Tue 9/3/19	Thu 10/3/19
Fulton County- Hardware & Software Training	Wed 9/4/19	Fri 9/6/19
Treutlen County- Hardware & Software Training	Wed 9/4/19	Thu 9/5/19
Decatur County- Hardware & Software Training	Tue 9/3/19	Wed 9/4/19
Lowndes County- Hardware & Software Training	Thu 9/5/19	Fri 9/6/19
Gwinnett County- Hardware & Software Training	Mon 9/9/19	Wed 9/11/19
Bartow County- Hardware & Software Training	Thu 9/12/19	Fri 9/13/19
Paulding County- Hardware & Software Training	Mon 9/9/19	Wed 9/11/19
Catoosa County- Hardware & Software Training	Thu 9/12/19	Fri 9/13/19
Carroll County- Hardware & Software Training	Mon 9/16/19	Tue 9/17/19
Bacon County- Hardware & Software Training	Mon 9/16/19	Tue 9/17/19
Evans County- Hardware & Software Training	Wed 9/18/19	Thu 9/19/19
Charlton County- Hardware & Software Training	Wed 9/18/19	Thu 9/19/19
State Level Hardware & Software Training	Mon 9/23/19	Thu 10/3/19

DEPENDENCIES

- ✓ Availability of State of Georgia personnel to attend hardware and software training courses. To be completed no later than October 3, 2019.

- ✔ Availability of County personnel to attend hardware and software training courses. To be completed no later than September 19, 2019.
- ✔ Availability of training locations at both the county and state locations in order to conduct all training courses.

ASSURANCES

- ✔ ES&S has resources allocated to the state of GA to fulfill any supplemental training needs outside of the master schedule.
- ✔ ES&S has dedicated resources to conduct training for State Personnel in order to conduct acceptance testing.
- ✔ ES&S has dedicated resources to conduct Software and Hardware training for all counties participating in the pilot phase, with completion of training by September 19th, 2019.
- ✔ ES&S has dedicated resources to conduct Software and Hardware training for all necessary State Personnel in order to complete all necessary state documentation, training, and testing for the November General Election. This training will conclude no later than October 3rd, 2019.

#12.5

Questions:

Provide a roll-out plan for deploying of a representative sample of equipment for each county by December 2019. Reference Attachment O Potential Equipment Distribution.

Clarification Questions:

Please describe the dependencies and assurances to meet the commitments proposed for: Completion of Phase 2 – Part 1 will be completed by end of the fourth quarter of 2019 (December 31, 2019). Completion of Phase 2 – Part 2 will be completed prior to the end of the first quarter of 2020 (March 31, 2020).

CLARIFICATION RESPONSE:

Original Response:

Please see the included Project Plan.

Clarifying Information:

ES&S is fully committed to meeting the PHASE 2 – Part 1: DECEMBER 31, 2019 and PHASE 2 – Part 2: MARCH 31, 2020 deadlines set forth by the GASOS in the RFP.

Equipment Delivery, Installation, Acceptance, and Distribution:**Phase 2 - Part 1**

Implementation Phase 2 Part 1		
Tabulation Hardware	Mon 8/19/19	Fri 9/20/19
Hardware Delivery to Georgia Distribution Facility	Mon 8/19/19	Mon 8/19/19
Pre-Installation/Setup & Acceptance Testing	Mon 8/19/19	Tue 9/3/19
Conduct Pre-Installation/Setup on Voting System	Mon 8/19/19	Tue 8/27/19
Conduct Acceptance on Voting System	Tue 8/20/19	Tue 9/3/19
Sign-off on Delivery & Acceptance Testing	Tue 9/3/19	Tue 9/3/19
Tabulation Hardware	Wed 8/28/19	Fri 11/15/19
Stage & Prepare Hardware for Shipment to County Locations	Wed 8/28/19	Thu 9/5/19
On-site Delivery of Hardware @ County Locations	Thu 8/29/19	Fri 11/15/19

All Phase 2 – Part 1 equipment will be delivered and acceptance tested in the central warehouse facility (on a rolling schedule) by September 3rd, 2019.

All Phase 2 – Part 1 equipment will be delivered to counties by September 6th, 2019.

Phase 2 - Part 2

Implementation Phase 2 Part 2		
Tabulation Hardware	Mon 9/23/19	Fri 1/24/20
Hardware Delivery to Georgia Distribution Facility	Mon 9/23/19	Fri 1/24/20
Pre-Installation/Setup & Acceptance Testing	Fri 2/7/20	Fri 3/13/20
Conduct Pre-Installation/Setup on Voting System	Fri 2/7/20	Fri 2/21/20
Conduct Acceptance on Voting System	Mon 2/10/20	Fri 3/13/20
Sign-off on Delivery & Acceptance Testing	Fri 3/13/20	Fri 3/13/20
Tabulation Hardware	Fri 2/21/20	Mon 3/30/20
Stage & Prepare Hardware for Shipment to County Locations	Fri 2/21/20	Fri 3/13/20
On-site Delivery of Hardware @ County Locations	Mon 3/16/20	Mon 3/30/20

All Phase 2 – Part 2 equipment will be delivered and acceptance tested in the central warehouse facility (on a rolling schedule) by March 13th, 2020.

All Phase 2 – Part 2 equipment will be delivered to counties by March 30th, 2020.

EMS Delivery and Installation:

EMS Workstation	Mon 7/22/19	Fri 9/20/19
Order EMS Hardware/Software	Mon 7/22/19	Mon 7/22/19
Stage & Prepare EMS Workstation	Mon 8/12/19	Thu 8/15/19
Ship Hardware to Georgia Distribution Site	Fri 8/16/19	Tue 8/20/19
On-site Delivery of EMS Workstation @ Georgia Distribution Site	Tue 8/20/19	Mon 9/2/19
Sign-off on Delivery & Acceptance Testing	Mon 9/9/19	Thu 9/19/19
Ship Hardware to County Sites	Tue 9/10/19	Thu 9/19/19
On-Site Delivery of EMS Workstation @ State/County Locations	Tue 9/17/19	Fri 9/20/19

All Phase 2 EMS deliveries to the GASOS distribution facility will be completed by September 2nd, 2019.

Phase 2 EMS deliveries to all counties will be completed by September 17th, 2019.

DEPENDENCIES

- ✓ Contingent upon signing of contract for Statewide Voting System by July 1st, 2019.
- ✓ Availability of State of Georgia personnel for Acceptance of the Phase 2 Part 1 equipment to be completed by September 3rd, 2019.
- ✓ Availability of remaining counties to accept delivery of equipment for Phase 2 Part 1 by September 6th, 2019.
- ✓ Availability of State of Georgia personnel for Acceptance of the Phase 2 Part 2 equipment to be completed by March 13th, 2020.
- ✓ Availability of remaining counties to accept delivery of equipment for Phase 2 Part 2 by March 30th, 2020.
- ✓ Dependent upon the continuity of requirements outlined in RFP. Any changes to the requirements would necessitate approval through the Project Change Control Process, with agreement of all changes and potential impact on project timelines by all involved parties.

ASSURANCES

- ✓ Additional time has been provided for State acceptance testing.
- ✓ ES&S has committed full-time Field Services resources to the distribution facility for the duration of the acceptance and distribution of equipment and EMS hardware/software to meet the timeline required for the completion of Phase 2 Part 1 by the end of Quarter 4 of 2019 (December 31, 2019). Expected completion is September 6th, 2019.
- ✓ ES&S has committed full-time Field Services resources to the distribution facility for the duration of the acceptance and distribution of equipment to meet the timeline required for the completion of Phase 2 Part 2 by the end of Quarter 1 of 2020 (March 31, 2020).

- ✔ ES&S will have a dedicated distribution facility manager onsite to coordinate the receiving of equipment. The facility manager will also be responsible for shipping to the individual counties once the acceptance testing is complete.
- ✔ ES&S Technical Services team will prepare and test all EMS workstations prior to shipping to the in-state distribution facility to accelerate the installation process.
- ✔ ES&S has dedicated resources to conduct any additional training for State Personnel in order to conduct acceptance testing for both tabulation and EMS systems.

Training:

Training- Hardware & Software	Mon 11/18/19	Thu 1/30/20
Seminole County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Brooks County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Camden County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Telfair County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Clay County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Peach County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Hancock County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Jasper County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19
Banks County- Hardware & Software Training	Mon 11/18/19	Tue 11/19/19

For a complete list of all county training dates, please refer to the project and training plans.

All county level training will be completed by January 30th, 2020.

DEPENDENCIES

- ✔ Availability of County personnel to attend hardware and software training courses. To be completed no later than January 30th, 2020.
- ✔ Availability of training locations at county locations in order to conduct all training courses.

ASSURANCES

- ✔ ES&S has resources allocated to the state of GA to fill any gaps should rescheduling become necessary.
- ✔ ES&S has dedicated resources to conduct training for State Personnel in order to conduct acceptance testing.
- ✔ ES&S has dedicated resources to conduct Software and Hardware training for all counties participating in Phase 2, with completion of training expected by January 30th, 2020.
- ✔ ES&S has committed to submitting all training documentation no later than September 4th, 2019 to all 159 counties involved in both Phase 1 and Phase 2.

#16.1

Questions:

Describe your measures in place and commitments to assure availability of products, components, software, services, and other deliverables for possible length of contract with renewals (15+ years). Describe whether second sourcing of generic or proprietary products is available or could be obtained by the GASOS or counties in the event of a failure or disruption in supply by the Supplier; price protection available to assure reasonable market prices for the life of the contract; and options available for services or upgrades from independent service organizations (if any) authorized or licensed by Supplier.

Clarification Questions:

How long does the equipment last? Will the equipment be available for the life of the contract? If the equipment becomes obsolete what is the proposed plan for continuity.

CLARIFICATION RESPONSE:

Original Response:

ES&S designs and manufactures its voting equipment to withstand normal use without deterioration and without excessive maintenance cost for a minimum lifecycle of 10-15 years, and we have many examples of equipment that surpassed that time frame.

To ensure the sustainability of our products throughout its lifecycle and beyond, ES&S engineers its voting system products with an eye on durability, ease of maintenance, and availability of parts and supplies. The ES&S supply chain is the most extensive in the election industry. We have the largest product offering, so we must have a strong supply chain. Product sustainability and lead-time compression is the driving force to having a strong supply chain. We choose long-life industrial-grade components and hardware to ensure we meet and exceed parts availability.

We have complete bill of materials for all our product lines. We continually monitor our component inventory supply, customer demand, and supplier availability. ES&S involvement includes inventory management, hardware engineering, manufacturing, purchasing, and field services. Our outside contacts include contract manufacturing partners, manufacturer representatives, manufacturers, and component suppliers. Constant monitoring and effective communications between all manufacturing partners is the main reason why we continue to enjoy success.

ES&S' product development strategy is to create purpose-built solutions that are uniquely customized to support a better election experience. This strategy allows us to sustain the products for a longer period of time as we largely don't rely on consumer off the shelf products.

ES&S has a large team of highly trained technicians located across the country that can be scheduled as the technical support needs arise.

Clarifying Information:

The tabulation equipment is built to last for 10-15 years and is available for life of the contract. For our 40 year history, we have never discontinued support of a tabulation product. We will support the tabulation systems for as long as the State of Georgia wants to use it.

ATTACHMENT A – TRAINING DOCUMENTATION

ATTACHMENT B – UPDATED PROJECT PLAN

COST PROPOSAL CLARIFICATION

eRFP Proposal for the Georgia Secretary of State	
2019	
eRFP Name	
Statewide Voting System	
eRFP Number	
47800-SOS0000037	
Vendor Name	
Election Systems and Software, LLC	
Vendor Address	
11208 John Galt Blvd	
Omaha, NE	
68137	
Vendor Point of Contact and Contact Information	
Jeb Cameron	
jeb.cameron@essvote.com	
(678) 472-9895	

eRFP	47800-SOS0000037
Vendor	Election Systems and Software, LLC
	The purpose of the Cost Model for this eRFP is to provide a fixed price fee structure for initial purchase and a total cost of ownership for a ten (10) year period so that the Suppliers' responses can be compared equitably. At a minimum , each Supplier should provide the details for the line items requested for: the initial purchase requirements, installation, cost through December 31, 2021 as covered in the warranty period, and the remaining costs for the ten (10) year term of the contract.
	Each Supplier is encouraged to supplement this pricing information with additional details as a separate worksheet and/or line items to demonstrate a fully loaded cost. Pricing information should support and demonstrate the ability to cover all costs associated with the requirements and as detailed in your responses to the Mandatory Scored Questions.
	Note that the Cost Model Evaluation will include the initial ten (10) year term of the contract to ensure that the interest of the counties is represented in the proposal and for them to budget for future years. The initial cost through December 31, 2021 to fully purchase, distribute, implement, and train all GASOS employees and counties (fully loaded) will be considered under and constrained by the budget proposal as defined by the Georgia General Assembly.
	The initial cost through December 31, 2021 to fully purchase, distribute, implement, and train all GASOS employees and counties (fully loaded) will be constrained by the budget proposal as defined by the Georgia General Assembly.

eRFP	47800-SOS0000037
Vendor	Election Systems and Software, LLC
	eRFP
	This section will be used to capture the total contract cost for the initial equipment purchase, implementation, and training and will be included in the Cost Model Calculation.
	Post Warranty
	After the initial purchase and two year initial warranty period through December 31, 2021, the state and counties will need details for the additional cost to support the software via software and licensing fees and all equipment through applicable additional maintenance and warranty costs. This worksheet is to provide these details and will be included in the Cost Model Calculations.
	County Purchases
	After the initial purchase and two year initial warranty period through December 31, 2021, counties will need details for the additional cost for consumables to support elections for counties of various sizes. The cost model includes four sections to capture the cost for extra large counties (200,000 ballots), large counties (75,000 ballots), medium counties (35,000 ballots) and small counties (10,000 ballots) to be included in the Cost Model Calculations. There is an additional section for reference only that will be used as check sum and data point for consumables to support an election with 7,000,0000 ballots and will not be included in the Cost Model Calculations.
	Implementation Worksheet
	This worksheet is to be used to show your detailed implementation costs and will be a subset of the total of your implementation costs as captured in the eRFP tab. This worksheet will not be included in the Cost Model Calculations except as an item in the eRFP tab and line item total.
	Cost Calcs
	The Supplier is to provide no information on this tab, it is to be calculated from the populated sections covered. The Supplier should confirm and check that the totals from the individual worksheets are accurately reflected.
	Additional Products and Services
	This worksheet will be used to capture future equipment purchases that may be independently made and pricing that could be used to create a Contract MSLA and will not be included in the Cost Model Calculations.

eRFP	47800-SOS0000037				
Vendor	Election Systems and Software, LLC				
	SVS components included in the eRFP	Qty	Price Per Unit	Total Price	Notes
	Election Management System (EMS) - Software & Hardware	1	#####	\$1,326,085.00	All components needed for operation at state level and 159 counties
	Electronic Poll Bool Management System (EPDMS) - Software & Hardware	1	\$9,750.00	\$9,750.00	All components needed for operation at state level and 159 counties
	Electronic Poll Book (EPoll)	8,000	\$1,235.00	\$9,880,000.00	All components needed for operation
	Ballot Marking Device (BMD) (with ability to stand and provide privacy)	30,050	\$2,899.80	\$87,138,990.00	All components needed for operation
	Polling Place Scanner (PPS) and Ballot Box	3,500	\$4,930.21	\$17,255,735.00	All components needed for operation
	Central Scanning Device (CSD)	165	\$9,869.00	\$1,628,385.00	All components needed for operation
	Implementation and Training Cost	1	#####	\$5,493,097.00	All services needed for full implementation (Use Implementation Worksheet for Detail)
	TOTAL:		#####		

eRFP	47800-SOS0000037								
Vendor	Election Systems and Software, LLC								
Post Warranty Cost									
Item Description									
Annual Software License and Support									
	Units	2022	2023	2024	2025	2026	2027	2028	2029
Election Management System (EMS)	1	\$851,655.00	\$851,655.00	\$851,655.00	\$851,655.00	\$881,530.00	\$881,530.00	\$912,420.00	\$912,420.00
Electronic Poll Bool Management System (EPDMS)	1	\$2,250.00	\$2,250.00	\$2,250.00	\$2,250.00	\$2,329.00	\$2,329.00	\$2,411.00	\$2,411.00
Electronic Poll Book (EPoll)	8,000	\$800,000.00	\$800,000.00	\$800,000.00	\$800,000.00	\$824,000.00	\$824,000.00	\$856,000.00	\$856,000.00
Ballot Marking Device (BMD)	30,050	\$1,652,750.00	\$1,652,750.00	\$1,652,750.00	\$1,652,750.00	\$1,712,850.00	\$1,712,850.00	\$1,772,950.00	\$1,772,950.00
Polling Place Scanner (PPS)	3,500	\$280,000.00	\$280,000.00	\$280,000.00	\$280,000.00	\$290,500.00	\$290,500.00	\$301,000.00	\$301,000.00
Central Scanning Device (CSD)	165	\$37,120.00	\$37,120.00	\$37,120.00	\$37,120.00	\$38,447.00	\$38,447.00	\$39,806.00	\$39,806.00
TOTAL:		\$3,623,775.00	\$3,623,775.00	\$3,623,775.00	\$3,623,775.00	\$3,749,656.00	\$3,749,656.00	\$3,884,587.00	\$3,884,587.00
								TOTAL:	#####
Item Description									
Annual Hardware Maintenance Fees									
	Units	2022	2023	2024	2025	2026	2027	2028	2029
Electronic Poll Book (EPoll)	8,000	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Ballot Marking Device (BMD)	30,050	\$2,253,750.00	\$2,253,750.00	\$2,253,750.00	\$2,253,750.00	\$2,343,900.00	\$2,343,900.00	\$2,434,050.00	\$2,434,050.00
Polling Place Scanner (PPS)	3,500	\$385,000.00	\$385,000.00	\$385,000.00	\$385,000.00	\$399,000.00	\$399,000.00	\$413,000.00	\$413,000.00
Central Scanning Device (CSD)	165	\$49,230.00	\$49,230.00	\$49,230.00	\$49,230.00	\$50,970.00	\$50,970.00	\$52,758.00	\$52,758.00
TOTAL:		\$2,687,980.00	\$2,687,980.00	\$2,687,980.00	\$2,687,980.00	\$2,793,870.00	\$2,793,870.00	\$2,899,808.00	\$2,899,808.00
								TOTAL:	#####

eRFP	47800-SO50000037
Vendor	Election Systems and Software, LLC

Assume No Stock on Hand

Provide pricing for one Extra Large Sized County to provide Consumables for 200,000 ballots	Qty	Qty Required	Price Per Unit 2020	Total Price 2020	Price Per Unit increase (Fixed % or ≤ C.P.I.)	Total Price 2021	Total Price 2022	Total Price 2023	Total Price 2024	Total Price 2025	Total Price 2026	Total Price 2027	Total Price 2028	Total Price 2029
Ballots	200,000	200,000	\$0.10	\$19,000.00	2.00%	\$19,380.00	\$19,767.60	\$20,162.95	\$20,566.21	\$20,977.54	\$21,397.09	\$21,825.03	\$22,261.53	\$22,706.76
Other Paper (e.g. printer tapes)	250	250	\$1.75	\$437.50	2.00%	\$446.25	\$455.18	\$464.28	\$473.56	\$483.04	\$492.70	\$502.55	\$512.60	\$522.85
Ink				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

TOTAL:	\$19,437.50	TOTAL:	\$19,826.25	\$20,222.78	\$20,627.23	\$21,039.78	\$21,460.57	\$21,889.78	\$22,327.58	\$22,774.13	\$23,229.61	Total:	#####
												Quantity	11 #####

Assume No Stock on Hand

Provide pricing for one Large Sized County to provide Consumables for 75,000 ballots	Qty	Qty Required	Price Per Unit 2020	Total Price 2020	Price Per Unit increase (Fixed % or ≤ C.P.I.)	Total Price 2021	Total Price 2022	Total Price 2023	Total Price 2024	Total Price 2025	Total Price 2026	Total Price 2027	Total Price 2028	Total Price 2029
Ballots	75,000	75,000	\$0.10	\$7,125.00	2.00%	\$7,267.50	\$7,412.85	\$7,561.11	\$7,712.33	\$7,866.58	\$8,023.91	\$8,184.39	\$8,348.07	\$8,515.03
Other Paper (e.g. printer tapes)	75	75	\$1.75	\$131.25	2.00%	\$133.88	\$136.55	\$139.28	\$142.07	\$144.91	\$147.81	\$150.76	\$153.78	\$156.86
Ink				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

TOTAL:	\$7,256.25	TOTAL:	\$7,401.38	\$7,549.40	\$7,700.39	\$7,854.40	\$8,011.49	\$8,171.72	\$8,335.15	\$8,501.85	\$8,671.89	Total:	#####
												Quantity	41 #####

Assume No Stock on Hand

Provide pricing for one Medium Sized County to provide Consumables for 35,000 ballots	Qty	Qty Required	Price Per Unit 2020	Total Price 2020	Price Per Unit increase (Fixed % or ≤ C.P.I.)	Total Price 2021	Total Price 2022	Total Price 2023	Total Price 2024	Total Price 2025	Total Price 2026	Total Price 2027	Total Price 2028	Total Price 2029
Ballots	35,000	35,000	\$0.10	\$3,325.00	2.00%	\$3,391.50	\$3,459.33	\$3,528.52	\$3,599.09	\$3,671.07	\$3,744.49	\$3,819.38	\$3,895.77	\$3,973.68
Other Paper (e.g. printer tapes)	40	40	\$1.75	\$70.00	2.00%	\$71.40	\$72.83	\$74.28	\$75.77	\$77.29	\$78.83	\$80.41	\$82.02	\$83.66
Ink				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

TOTAL:	\$3,395.00	TOTAL:	\$3,462.90	\$3,532.16	\$3,602.80	\$3,674.86	\$3,748.35	\$3,823.32	\$3,899.79	\$3,977.78	\$4,057.34	Total:	#####
												Quantity	50 #####

Assume No Stock on Hand

Provide pricing for one Small Sized County to provide Consumables for 10,000 ballots	Qty	Qty Required	Price Per Unit 2020	Total Price 2020	Price Per Unit increase (Fixed % or ≤ C.P.I.)	Total Price 2021	Total Price 2022	Total Price 2023	Total Price 2024	Total Price 2025	Total Price 2026	Total Price 2027	Total Price 2028	Total Price 2029
Ballots	10,000	10,000	\$0.10	\$950.00	2.00%	\$969.00	\$988.38	\$1,008.15	\$1,028.31	\$1,048.88	\$1,069.85	\$1,091.25	\$1,113.08	\$1,135.34
Other Paper (e.g. printer tapes)	10	10	\$1.75	\$17.50	2.00%	\$17.85	\$18.21	\$18.57	\$18.94	\$19.32	\$19.71	\$20.10	\$20.50	\$20.91
Ink				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Required Consumables				\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

TOTAL:	\$967.50	TOTAL:	\$986.85	\$1,006.59	\$1,026.72	\$1,047.25	\$1,068.20	\$1,089.56	\$1,111.35	\$1,133.58	\$1,156.25	Total:	#####
												Quantity	57 #####

Assume No Stock on Hand

Consumables for running one statewide election with 7 million ballots on the proposed SVS				Notes
	Qty	Price Per Unit	Total Price	
Ballots	7,000,000	0.095	665000	Assume no spoilage
Other Paper (e.g. printer tapes)	3,500	1.75	6125	
Ink	TBD			
Other Required Consumables	TBD			
Other Required Consumables	TBD			
Other Required Consumables	TBD			
Other Required Consumables	TBD			

TOTAL:	\$671,125.00
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TOTAL:	159 #####
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47800-SOS0000037

Election Systems and Software, LLC

Fill out all labor types applicable

Job Position	FTE, Supplier or Subcontractor Name	Hourly Rate During Implementation	Estimated Project Hours (through complete State rollout, installation of all equipment and training for all counties)	Cost Total
Project Director				\$0.00
Project Manager	Holly Richardson	\$212.50	\$952.00	\$202,300.00
Business Analyst				\$0.00
Database Administrator				\$0.00
Hardware Specialist				\$0.00
Programmer				\$0.00
Quality Assurance Lead				\$0.00
Security Architect				\$0.00
Technical Lead	Kim Carlisle, Staci Jackson and L	\$212.50	\$2,424.00	\$515,100.00
Test Lead				\$0.00
Tester				\$0.00
Training Lead/Manager				\$0.00
Training Specialist				\$0.00
Other (specify)	Georgia-based election resource	\$125.00	\$6,624.00	\$828,000.00
			Total:	\$1,545,400.00

Implementation and Training Cost for Full SVS	Unit Price (Specify Unit Type)	Units	Total Price
FTE's - (Labor Rates captured above)			#####
Project Management (if not included in Labor Rate above)			\$0.00
Software Programming and Configuration (if not included in Labor Rate above)			\$0.00
Application Interface Modeling and Development (if not included in Labor Rate above)			\$0.00
Consulting (if not included in Labor Rate above)			\$0.00
Travel (Estimated Using State Travel Per Diem and Travel Guidelines)			\$0.00
Sub contractors (if not included in Labor Rate above)			\$0.00
Ballot building services for all elections through June 30, 2021	1000	522	\$522,000.00
Distribution cost: Warehouse, Acceptance, and Distribution	2716372	1	#####
Election Day Support- State Level On Site	4675	3	\$14,025.00
Election Day Support- County Level On Site (Single County)	4675	24	\$112,200.00
Election Day Support- State Level Remote			\$0.00
Election Day Support- County Level Remote (Single County)			\$0.00
Training Fees (if not included in Labor Rate above)	1700	343	\$583,100.00
		TOTAL:	#####

eRFP	47800-SOS0000037	
Vendor	Election Systems and Software, LLC	
	RFP TOTAL COST ANALYSIS	
	Cost Model	
		System Total
		eRFP Total
	Sample (159 County Purchase)	
		System Total
		Consumables Total
		County Total
		Total Cost Model:
	8 Years Post Warranty (County and State)	
		License Fees Total
		Maintenance Fees Total
	7,000,000 Ballots (For Benchmark/Assessment Purpose Only)	
	Consumables Total	

eRFP	47800-SOS0000037														
Vendor	Election Systems and Software, LLC														
	Systems	Qty	Price Per Unit 2021	Total Price 2021	Price Per Unit increase (Fixed % or ≤ C.P.I.)	Total Price 2022	Total Price 2023	Total Price 2024	Total Price 2025	Total Price 2026	Total Price 2027	Total Price 2028	Total Price 2029	Total Price 2030	
	SAMPLE	100	\$10.00	\$1,000.00	1.23%	\$1,012.30	\$1,024.75	\$1,037.36	\$1,050.12	\$1,063.03	\$1,076.11	\$1,089.34	\$1,102.74	\$1,116.31	
	Ballot Marking Device - (Sample Purchase of 100)	100	\$3,575.00	\$357,500.00	2.00%	\$364,650.00	\$371,943.00	\$379,381.86	\$386,969.50	\$394,708.89	\$402,603.06	\$410,655.13	\$418,868.23	\$427,245.59	
	BMD Stand (if required)			\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Privacy Shield/Solution (if required)			\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Polling Place Scanner, Stand, and Ballot Box - (Sample Purchase of 100)	100	\$6,080.00	\$608,000.00	2.00%	\$620,160.00	\$632,563.20	\$645,214.46	\$658,118.75	\$671,281.13	\$684,706.75	\$698,400.89	\$712,368.90	\$726,616.28	
	Central Scanning Device	2	\$84,510.00	\$169,020.00	2.00%	\$172,400.40	\$175,848.41	\$179,365.38	\$182,952.68	\$186,611.74	\$190,343.97	\$194,150.85	\$198,033.87	\$201,994.55	
	CSD Stand (if required)			\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Poll Book - (Sample Purchase of 100)	100	\$1,235.00	\$123,500.00	2.00%	\$125,970.00	\$128,489.40	\$131,059.19	\$133,680.37	\$136,353.98	\$139,081.06	\$141,862.68	\$144,699.93	\$147,593.93	
	Peripheral Equipment (if required)			\$0.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
	Ballot on Demand	1	\$6,470.10	\$6,470.10	2.00%	\$6,599.50	\$6,731.49	\$6,866.12	\$7,003.44	\$7,143.51	\$7,286.38	\$7,432.11	\$7,580.75	\$7,732.37	
	Central Ballot Printing	4	\$0.29	\$1.16	3.00%	\$1.19	\$1.23	\$1.27	\$1.31	\$1.34	\$1.39	\$1.43	\$1.47	\$1.51	
	TOTAL:			\$1,264,491.26	TOTAL:	\$1,289,781.10	\$1,315,576.73	\$1,341,888.28	\$1,368,726.06	\$1,396,100.59	\$1,424,022.62	\$1,452,503.08	\$1,481,553.16	\$1,511,184.24	Total: #####

APPROACH TO COST PROPOSAL - NARRATIVE

Approach to Cost Proposal - Narrative

Pricing Form Tab	Description	Approach/Assumptions/Methodology	Technical Response Reference
eRFP	Election Management System (EMS) - Software & Hardware	<p>The EMS consists of the following:</p> <ul style="list-style-type: none"> • Electionware Program Your Own (PYO) Software License for the State with a two (2) year warranty • Electionware Reporting Software License with Media Burn Capability for each county with a two (2) year warranty • Election Management Hardware for the State including five (5) Desktop Workstations with Battery Backup, one (1) File Server and one (1) Printer • Election Management Hardware for counties including one (1) Desktop Workstation with Battery Backup and one (1) Printer for each county 	Attachment I - Election Management System
eRFP	Electronic Poll Book Management System (EPDMS) - Software & Hardware	The EPDMS represents a Pollware Software License for the State with a two (2) year warranty	Attachment M - EPoll Data Management System
eRFP	Electronic Poll Book (EPoll)	This deliverable includes the ExpressPoll 10" Tablet, Stand, Integrated Barcode Reader, 16GB Thumb Drive, Carrying Case, 32GB Micro-SD Card w/SD Adapter, Mobile Device Management, ExpressPoll Software Application and a two (2) year warranty	Attachment N - Electronic Poll Book
eRFP	Ballot Marking Device (BMD) (with ability to stand and provide privacy)	This deliverable is the ExpressVote BMD Terminal with Internal Backup Battery, Soft-Sided Case, ADA Keypad, Headphones, one (1) Standard 4GB Memory Device, and a two (2) year warranty. The Tabulation Hardware Discount provided in our previous Cost Worksheet has been incorporated into the Unit Price.	Attachment L - Ballot Marking Device
eRFP	Polling Place Scanner (PPS) and Ballot Box	This deliverable is the Model DS200 Scanner with Internal Backup Battery, Plastic Ballot Box with Steel Door and e-Bin, Tote Bin, Paper Roll, one (1) Standard 4GB Memory Device, and a two (2) year warranty. The Tabulation Hardware Discount provided in our previous Cost Worksheet has been incorporated into the Unit Price.	Attachment J - Polling Place Scanner

Approach to Cost Proposal - Narrative

Pricing Form Tab	Description	Approach/Assumptions/Methodology	Technical Response Reference
eRFP	Central Scanning Device (CSD)	<p>ES&S is offering three CSD solutions under this category:</p> <ul style="list-style-type: none"> • Four (4) Model DS850 Scanners with Steel Table/Cart, Start-up Kit, Dust Cover, Reports Printer, Audit Printer, Battery Backup, two (2) USB Cables, three (3) Standard 8GB Memory Devices, and a two (2) year warranty. These units are intended for the largest counties, including Cobb, DeKalb, Fulton and Gwinnett Counties. The Tabulation Hardware Discount provided in our previous Cost Worksheet has been incorporated into the Unit Price. • Twelve (12) Model DS450 Scanners with Steel Table/Cart, Start-up Kit, Dust Cover, Reports Printer, Audit Printer, Battery Backup, two (2) USB Cables, two (2) Standard 8GB Memory Devices and a two (2) year warranty. These units will be distributed to counties with approximately 80,000 or more registered voters. The Tabulation Hardware Discount provided in our previous Cost Worksheet has been incorporated into the Unit Price. • One hundred forty nine (149) Model DS200 Scanners with Internal Backup Battery, Plastic Ballot Box with Steel Door and e-Bin, Tote Bin, Paper Roll, one (1) Standard 4GB Memory Device, and a two (2) year warranty. These units will be distributed to counties with small absentee volume plus six (6) additional units for the State. The Tabulation Hardware Discount provided in our previous Cost Worksheet has been incorporated into the Unit Price. 	Attachment K - Central Scanning Device
eRFP	Implementation and Training Cost	This includes the complete Implementation and Training Costs as set forth on the Implementation Worksheet tab	<p>Implementation: 12-1 PM PLAN, 12-2 PM STAFF, 12-3 PM TIME, 12-4 Deploy 1, 12-5 Deploy 2, 12-6 Deploy 3, Appendix A - Statement of Work</p> <p>Training: 9-1 GASOS Train EMS, 9-2 GASOS Train Equip, 9-3 GASOS Train Epoll, 10-1 County Training, 10-2 County Train Docs</p>

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Pricing Form Tab	Description	Approach/Assumptions/Methodology	Technical Response Reference
Post Warranty	Election Management System (EMS) - Annual Software License and Support	This price includes Annual Software Maintenance and Support fees for the Electionware PYO license at the State and Electionware Reporting Software with Media Burn Capability at each county	Attachment I - Election Management System
Post Warranty	Electronic Poll Book Management System (EPDMS) - Annual Software License and Support	This price includes Annual Software Maintenance and Support fees for Pollware Software at the State	Attachment M - EPoll Data Management System
Post Warranty	Electronic Poll Book (EPoll) - Annual Software License and Support	This price includes Annual Software Maintenance and Support fees for 8,000 ExpressPoll Units	Attachment N - Electronic Poll Book
Post Warranty	Ballot Marking Device (BMD) - Annual Software License and Support	This price includes Annual Software Maintenance and Support fees for 30,050 ExpressVote BMD Terminals	Attachment L - Ballot Marking Device
Post Warranty	Polling Place Scanner (PPS) - Annual Software License and Support	This price includes Annual Software Maintenance and Support fees for 3,500 Model DS200 Scanners	Attachment J - Polling Place Scanner
Post Warranty	Central Scanning Device (CSD) - Annual Software License and Support	This price includes Annual Software Maintenance and Support fees for 4 Model DS850 Scanners, 12 Model DS450 Scanners, and 149 Model DS200 Scanners	Attachment K - Central Scanning Device
Post Warranty	Electronic Poll Book (EPoll) - Annual Hardware Maintenance Fees	Hardware Maintenance is not available after original two (2) year warranty. No pricing has been provided.	Attachment N - Electronic Poll Book
Post Warranty	Ballot Marking Device (BMD) - Annual Hardware Maintenance Fees	This price includes Extended Hardware Warranty coverage for 30,050 ExpressVote BMD Terminals	Attachment L - Ballot Marking Device
Post Warranty	Polling Place Scanner (PPS) - Annual Hardware Maintenance Fees	This price includes Extended Hardware Warranty coverage for 3,500 Model DS200 Scanners	Attachment J - Polling Place Scanner
Post Warranty	Central Scanning Device (CSD) - Annual Hardware Maintenance Fees	This price includes Extended Hardware Warranty with Biennial Preventative Maintenance for 4 Model DS850 Scanners, 12 Model DS450 Scanners, and Extended Hardware Warranty coverage for 149 Model DS200 Scanners	Attachment K - Central Scanning Device
County Purchases	Ballots	This price includes a 14" ExpressVote Activation Card without stubs, pre-printing, or other customizations. The 14" Activation Card is the most commonly used size. Shipping & handling is not included and would be billed separately at the time of order.	8-1 CONSUMABLES
County Purchases	Other Paper (e.g. printer tapes)	This price is for a DS200 paper roll, not including shipping & handling which would be invoiced at the time of order. The quantities provided for each county category are based on a single paper roll being used for multiple elections and one or two elections on average per year. The final statewide election assumes one (1) paper roll for each DS200 used as a precinct scanner.	8-1 CONSUMABLES

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Pricing Form Tab	Description	Approach/Assumptions/Methodology	Technical Response Reference
Implementation Worksheet	Project Manager	Project Manager for a total of 119 Days. While it is customary to charge this service on a per day basis, we have converted this to hours to comply with the Cost Proposal.	12-1 PM PLAN, 12-2 PM STAFF, 12-3 PM TIME, 12-4 Deploy 1, 12-5 Deploy 2, 12-6 Deploy 3, Appendix A - Statement of Work
Implementation Worksheet	Technical Lead	3 Technical Leads for a total of 303 Days. While it is customary to charge this service on a per day basis, we have converted this to hours to comply with the Cost Proposal. Technical Leads will ensure the State and each County is fully supported and knowledge is successfully transferred to all Election Staff members throughout the State. Following the state's 12 designated service regions, a Technical Lead will be assigned to oversee four regions, supported by Regional Coordinators to assist the Counties throughout the term of the Project.	12-1 PM PLAN, 12-2 PM STAFF, 12-3 PM TIME, 12-4 Deploy 1, 12-5 Deploy 2, 12-6 Deploy 3, Appendix A - Statement of Work
Implementation Worksheet	Other (specify) - Regional Coordinators (12 total)	12 Regional Coordinators for a total of 828 Days. While it is customary to charge this service on a per day basis, we have converted this to hours to comply with the Cost Proposal. The Regional Coordinators are an onsite team of local support personnel reporting throughout the Project to both Project Manager and Technical Leads.	12-1 PM PLAN, 12-2 PM STAFF, 12-3 PM TIME, 12-4 Deploy 1, 12-5 Deploy 2, 12-6 Deploy 3, Appendix A - Statement of Work
Implementation Worksheet	Ballot building services for all elections through June 30, 2021	3 dedicated resources for ballot building services through June 30, 2021	11-1 BALLOT BUILDING
Implementation Worksheet	Distribution cost: Warehouse, Acceptance, and Distribution	Price includes shipment of tabulation equipment to a central warehouse location, pre-acceptance assembly/setup, post-acceptance repackaging, and shipment to each county, all based on the quantities in the Cost Proposal. Please note that we intend to deliver the EMS and Third Party Hardware directly to the counties.	14-1 Accept Test, ATTACHMENT C – BACKGROUND AND SCOPE OF WORK; Scope of Work
Implementation Worksheet	Election Day Support- State Level On Site	We have included a total of 3 Election On-Site Support events for the State during the pilot election	ATTACHMENT C – BACKGROUND AND SCOPE OF WORK; Statement of Work, page 19
Implementation Worksheet	Election Day Support- County Level On Site (Regional)	24 Regional Election On-Site Support personnel for use in elections during the pilot election	11-3 County Support
Implementation Worksheet	Training Fees (if not included in Labor Rate above)	343 total days for training the state and each county on all proposed equipment and software	9-1 GASOS Train EMS, 9-2 GASOS Train Equip, 9-3 GASOS Train EPoll , 10-1 County Training, 10-2 County Train Docs

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Pricing Form Tab	Description	Approach/Assumptions/Methodology	Technical Response Reference
Additional Products & Services	Ballot Marking Device - (Sample Purchase of 100)	This price includes the State's quantity of 100 ExpressVote BMD Terminals with Internal Backup Battery, Soft-Sided Case, ADA Keypad, Headphones, one (1) Standard 4GB Memory Device, and a two (2) year warranty. Discounting may apply and unit prices do not include shipping and handling, which would be invoiced separately.	Attachment L - Ballot Marking Device
Additional Products & Services	Polling Place Scanner, Stand, and Ballot Box - (Sample Purchase of 100)	This price includes the State's quantity of 100 Model DS200 Scanners with Internal Backup Battery, Plastic Ballot Box with Steel Door and e-Bin, Tote Bin, Paper Roll, one (1) Standard 4GB Memory Device, and a two (2) year warranty. Discounting may apply and unit prices do not include shipping and handling, which would be invoiced separately.	Attachment J - Polling Place Scanner
Additional Products & Services	Central Scanning Device	<p>The price for the Central Scanning Device is a blended rate that reflects the following:</p> <ul style="list-style-type: none"> • 1 Model DS850 Scanner with Steel Table/Cart, Start-up Kit, Dust Cover, Reports Printer, Audit Printer, Battery Backup, two (2) USB Cables, three (3) Standard 8GB Memory Devices, and a two (2) year warranty. Discounting may apply and unit prices do not include shipping and handling, which would be invoice separately. • 1 Model DS450 Scanner with Steel Table/Cart, Start-up Kit, Dust Cover, Reports Printer, Audit Printer, Battery Backup, two (2) USB Cables, two (2) Standard 8GB Memory Devices and a two (2) year warranty. Discounting may apply and unit prices do not include shipping and handling, which would be invoiced separately. 	Attachment K - Central Scanning Device
Additional Products & Services	Poll Book - (Sample Purchase of 100)	This price includes the State quantity of 100 ExpressPoll 10" Tablets with Stand, Integrated Barcode Reader, 16GB Thumb Drive, Carrying Case, 32GB Micro-SD Card w/SD Adapter, Mobile Device Management, ExpressPoll Software Application and a two (2) year warranty. Discounting may apply and unit prices do not include shipping and handling which would be invoiced separately.	Attachment N - Electronic Poll Book

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Pricing Form Tab	Description	Approach/Assumptions/Methodology	Technical Response Reference
Additional Products & Services	Ballot on Demand	This price includes one (1) Compact Printer with a Laptop, a five (5) year hardware warranty, and a one (1) year software warranty with Single and Multiple Request Capability. For sake of giving the same pricing as the previous pricing response, the cost of one Ballot On Demand Blank Sheet has also been included. Customer is responsible for purchasing Ballot On Demand blank ballot stock and consumables. Ballot On Demand Election Set-Up Fees are not included in pricing. Discounting may apply and unit prices do not include shipping and handling, which would be invoiced separately. Ballot On Demand (BOD) systems currently used in Georgia will work with our proposed SVS solution.	20-1 BOD
Additional Products & Services	Central Ballot Printing	This price reflects a blended cost of the following: <ul style="list-style-type: none"> • One (1) 11", 14", or 17" Black and White Pre-Printed Ballot • One (1) 19" Black and White Pre-Printed Ballot • One (1) 11", 14", or 17" Pre-Printed Ballot with Color • One (1) 19" Pre-Printed Ballot with Color Price does not include shipping & handling, which would be invoiced separately.	20-2 ABS MAIL

CONTRACT EXCEPTIONS CLARIFICATION FORM



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CONTRACT EXCEPTION FORM

Instructions: Indicate only the contract terms that are absolutely necessary to be able to accept the SVS project if determined to be the top bidder.

Page Number	Contract Section Number	Item	CONTRACT EXCEPTION
2	2.1.1 Solution Order	2.1.1(v) – Definition of Maintenance Services	<p>Reject []; Accept if modified [X] as follows:</p> <p>2.1.1 <u>Solution Order</u>. For the ordering of a Solution from Contractor, any State Entity and Contractor will, subject to mutual agreement by both parties, execute a written order (each an "Solution Order"). Each Solution Order shall: (a) be substantially in the form of Exhibit A hereto; (b) be consecutively numbered with respect to all prior Solution Orders; and (c) include, where applicable and available at that time, the following information:</p> <p>(i) the services described in this Agreement, including the Configuration Services, Implementation Services, Maintenance Services, Training Services and other services provided by Contractor under this Agreement (the "Services"), which are being purchased by the applicable State Entity;</p> <p>(ii) licenses and/or sublicenses to the application software (the "Application Programs"), and to the custom programming application software (the "Special Programs") required in connection with the Services;</p> <p>(iii) the software support services to be provided by Contractor for the Application Programs and the Special Programs (collectively, the "Support Services");</p> <p>(iv) the hardware and equipment Deliverables to be provided by Contractor hereunder, including any computer systems, accessories, supplies, parts, related Documentation, and Revisions thereto to be provided by Contractor required for the operation of the Solution (the "Equipment") and the licenses and/or sublicenses to the operating software for such Equipment granted by Contractor (the "Operating Programs");</p> <p>(v) the maintenance <u>and repair</u> services for the Equipment <u>as set forth in Contractor's Extended Warranty Agreement</u> (collectively, the "Maintenance Services");</p> <p>(vi) the date by which the Solution must be fully delivered;</p> <p>(vii) the particular State Site to which such Solution must be</p>



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			<p>delivered; and</p> <p>(viii) the price applicable to the items set forth on such Solution Order.</p> <p>The terms "Application Programs," "Special Programs," and "Operating Programs" are collectively referred to as the "Software." In the event of a conflict between the terms of this Agreement and the terms of any Solution Order, except with respect to any provision of this Agreement which explicitly states that it may be modified or superseded by an analogous provision in a Solution Order, the terms of this Agreement shall control. The terms and conditions of each Solution Order will apply solely with respect to the Solution purchased under such Solution Order and shall not be deemed to modify this Agreement.</p>
3	2.1.2 Additional Products and Services	Additional Product and Services to be provided at no cost.	<p>Reject []; Accept if modified [X] as follows:</p> <p>2.1.2 <u>Additional Products and Services</u>. As further provided in Section 2.3 and other provisions describing the Solution, it is acknowledged that Contractor is obligated as part of the Solution to provide the State Entities from time to time additional services, application software, custom programming application software, operating software, software support services, equipment and equipment maintenance services, at no charge or at such fees as mutually agreed upon by the parties, which are then being provided by Contractor and are not specifically covered by this Agreement of an existing Solution Order or Services Order. Such additional items, if provided as part of the Solution, will automatically be considered within the terms "Services," "Application Programs," "Special Programs," "Operating Programs," "Support Services," "Equipment," and "Maintenance Services". shall automatically be amended to include all such additional services, application software, custom programming application software, operating software, software support services, equipment, and equipment maintenance services, as the case may be, which are provided by Contractor to State.</p>
3	2.1.5 Shipment, Title and Risk of Loss	Contractor's responsibility to replace any Equipment or hardware that does not pass Acceptance Testing.	<p>Reject []; Accept if modified [X] as follows:</p> <p>2.1.5 <u>Shipment, Title and Risk of Loss</u>. For each piece of Equipment or other Solution hardware component, Contractor shall pass title and ownership of such Solution component to State upon State's payment in full for such Solution component. Upon State's payment in full for each Solution, Contractor will deliver a bill of sale for each Solution component to State, as applicable. Contractor guarantees that State shall acquire good and clear title to the Equipment and other Solution hardware components being purchased hereunder, free and clear of all liens and encumbrances. Contractor shall arrange for shipment, at Contractor's expense, of Equipment by a mutually acceptable common carrier F.O.B.</p>



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			to the applicable State Site, or other delivery location specified in the Solution Order, at a mutually agreeable time. Risk of loss for such Equipment shall pass to State upon proper delivery at the designated destination. There shall be no additional charge to State for shipping, delivery or insurance beyond the prices set forth in the Solution Order. In the event of damage to any Equipment or hardware during transit or if Contractor or its designee delivers Equipment or hardware that does not pass Acceptance Testing, then Contractor will <u>repair or</u> replace such Equipment or hardware at Contractor's expense, including covering all shipping costs associated with returning such items to Contractor.
4	2.1.6 Inspection	Contractor's responsibility to replace any Equipment or hardware that does not pass Acceptance Testing.	<p>Reject []; Accept if modified [X] as follows:</p> <p>2.1.6 <u>Inspection</u>. In accordance with the Installation Plan and the requirements for the Acceptance Testing Plan, all Equipment shall be inspected as follows: (i) following arrival of the initial deliveries at the central warehouse designated by the State and (ii) for the same deliveries, when forwarded to the State Site (or any subsequent delivery made directly to the State Site(s)). Prior payments shall not be considered as waiving any right of testing or inspection of the State Entities under this Agreement. Determination by a State Entity that Equipment or component has passed Acceptance Testing is without prejudice to any other rights or remedies that such State Entity may have with respect to any subsequently uncovered non-compliance, defect, or non-conformity. Any State Entity may return any Equipment or component of the Solution to Contractor that it determines not to have passed Initial Testing or Acceptance Testing for <u>repair or</u> replacement, and such returns shall be at Contractor's expense including as relates to transportation charges. Any return made by a State Entity for failure of the Equipment or any component of the Solution to pass the Acceptance Testing shall not be affected by any determination by State that such Equipment or component passed Initial Acceptance Testing. <u>Provided Contractor is unable to repair any rejected Equipment or any component of the Solution on-site and such Equipment or any such component of the Solution must be returned to Contractor, if Contractor fails to arrange shipment and pickup of such rejected Equipment by a mutually acceptable common carrier (F.O.B. the State Site from which such rejected items will be dispatched) and redeliver appropriate replacement Equipment or components sufficient to cure the defect prompting the rejection and otherwise fully functional in accordance with the requirements of this Agreement, within thirty (30) days of the applicable State Entity's notification of such rejection, the State Entity shall be entitled to, at its option: (a) rescind the applicable Solution Order and receive a payment from Contractor of the "Standard Liquidated Damages" as defined below; (b) accept the rejected Equipment or component at an</u></p>



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			equitable price reduction agreed by the parties; or (c) demand specific performance. "Standard Liquidated Damages" shall mean and include (1) all fees actually paid by the State Entity (and not previously refunded) towards the purchase price for Equipment set forth in the rescinded Solution Order as of the date of such payment of Standard Liquidated Damages; and (2) the actual expenses incurred by the State Entity following execution by the parties of the applicable Solution Order related to such Solution Order.
4	2.3 Revisions; Upgraded Solution	2.3.1 Contractor's responsibility for Revisions.	<p>Reject []; Accept if modified [X] as follows:</p> <p>2.3.1 If Contractor makes any revision, modification, enhancement, improvement or otherwise updates the Solution, the Contractor Licensed Software, any component thereof, or code used therein to include any patches, upgrades, updates, new versions, substitutions, replacements, and other modifications, improvements and enhancements, including through the introduction of new products that have comparable purpose and functionality as the Contractor Licensed Software provided with the Solution used by the State Entities (collectively the "Revisions"), such Revisions will be made available to the State Entities, and, if approved by the State, installed and implemented by Contractor, on a no-charge basis at fees to be mutually agreed upon by the parties (with a corresponding credit for the amortized cost of the component being replaced by the accepted Revision) and will be deemed to be part of the Solution Contractor Licensed Software. The State or State Entities are responsible for obtaining any upgrades or purchases of Third Party Materials required to operate the Revisions as well as the cost of any replacements, retrofits or modifications to the Equipment which may be necessary in order to operate the Revisions. All Revisions shall be deemed to be Contractor Licensed Software for purposes of this Agreement upon delivery. The State or State Entities may install the Revisions in accordance with Contractor's recommended instructions or may request that Contractor install the Revisions at fees to be mutually agreed upon by the parties. Contractor may charge the State or State Entities at its then-current rates to (i) train the State of State Entities on the Revisions, if such training is requested by the State of State Entities or (ii.) provide maintenance and support on the Contractor Licensed Software that is required as a result of the State of State Entities failure to timely or properly install a Revision. Contractor shall keep State informed of any potential Revisions being considered by Contractor, Revisions which may be necessary to keep the Solution Contractor Licensed Software relevant, and any developments in the industry or election practices generally that could adversely affect the Solution Contractor Licensed Software or render it obsolete including by: (i) meeting with State quarterly throughout the</p>



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			<p>twenty-four (24) months immediately following the Effective Date and then twice in each of the successive twelve (12) month period remaining during the Term to discuss the same and (ii) providing State with a detailed comparison of the Solution as would exist after any proposed Revisions (the "Upgraded Solution") with the original Solution hereunder. The Upgraded Solution and the Revisions contained therein shall be subject to State's prior review and approval and State may conduct such testing and evaluations of the same as it determines to be necessary. If the State declines to use the Revisions or the Upgraded Solution, Contractor will remain obligated to support the existing version of the Solution during the Term. For the avoidance of doubt, except as otherwise specified in <u>this Section 2.3.1 or</u> Section 2.3.2, Contractor shall provide all Revisions occurring at any time during the Term at no additional cost to, and without increases to any existing fees payable hereunder by, any State Entities.</p>
5	2.5 Interoperability; Integration	Contractor's obligations to integrate its Solution with other devices.	<p>Reject []; Accept if modified [X] as follows:</p> <p>2.5 <u>Interoperability; Integration</u>. Requirements of the Solution include full integration with other devices and applications to be specified in the applicable Schedules. Within industry standards <u>and subject to applicable federal and state certification rules and regulations</u>, State reserves the right to select the features, tools, accessories and companion applications to be used in or with the Solution. Contractor agrees to work with and support the other contractors who offer such products and solutions. State reserves the right to approve system configuration, architecture, or functionality that affects the choice or use of the third-party products.</p>
6	3.1.1 Grant of License	Contractor's license requirements for the Contractor Licensed Software.	<p>Reject []; Accept if modified [X] as follows:</p> <p>3.1.1 Grant of License. Except as provided elsewhere in this Agreement or an applicable Solution Order, Contractor hereby grants to State a non-exclusive, perpetual, irrevocable, and worldwide license for State and State Entities to use, install, execute, store, and display the object version of all Contractor Licensed Programs in connection with State's use, operation, or support of the Solution and in accordance with all the terms and conditions of this Agreement. In addition, State, the other State Entities, and/or State Contractors, subject to the restrictions and processes set forth herein, shall be permitted, in connection with the use, operation, or support of the Solution, to: (a) use the Contractor Licensed Programs at any State Site; (b) make and use [XX] copies, per State Site, of the Contractor Licensed Programs;¹ (c) use the Contractor Licensed Programs for to fulfill the Mandatory Requirements including by providing access at all applicable State Sites to the Contractor Licensed Programs, other than by remote connection; and (d) use and/or copy of the Contractor</p>



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			<p>Licensed Programs for the purpose of creating and using training materials relating to the Contractor Licensed Programs for internal purposes, which training materials may include flow diagrams, system operation schematics, or screen prints from operation of the Contractor Licensed Programs. <u>Notwithstanding the foregoing, the State, State Entities or State Contractors shall not take any of the following actions with respect to the Contractor Licensed Software or Documentation:</u></p> <p>a. <u>Reverse engineer, decompile, disassemble, re-engineer or otherwise create, attempt to create, or permit, allow or assist others to create, the source code or the structural framework for part or all of the Contractor Licensed Software;</u></p> <p>b. <u>Cause or permit any use, display, loan, publication, transfer of possession, sublicensing or other dissemination of the Contractor Licensed Software or Documentation, in whole or in part, to or by any third party without Contractor's prior written consent;</u></p> <p>c. <u>Cause or permit any change to be made to the Contractor Software without Contractor's prior written consent; or</u></p> <p>d. <u>Allow a third party to cause or permit any copying, reproduction or printing of any output generated by the Contractor Licensed Software (except finished ballots by ballot printers selected by State or State Entities) in which Contractor owns or claims any proprietary intellectual property rights (e.g., copyright, trademark, patent pending or patent), including, but not limited to, any ballot shells or ballot code stock.</u></p>



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7	4.1.3 Attachments to Solution	Contractor's obligations with respect to attachments to the Solution	<p>Reject []; Accept if modified [X] as follows:</p> <p>4.1.3 <u>Attachments to Solution</u>. Subject to the other terms of this Section, in the event State provides Contractor with Functional Requirements for a certain Solution (and obtains confirmation of approval thereof as required below), State shall be entitled to install any attachment, feature, or device to, or install any Licensed Programs, on such Solution without affecting Contractor's representations and warranties hereunder, if within a reasonable period of time not to exceed thirty (30) business days <u>or such additional time as may be mutually agreed upon by the parties</u> after receipt from State of notice of its intent to do so (such notice to be addressed to the Contractor Relationship Manager and delivered via return receipt mail), Contractor provides written notice to State either confirming compatibility with the Solution of the such items or stating reasonable grounds upon which it concludes such attachment, feature, device, modification, change, enhancement, upgrade, or addition will adversely affect its obligations, including any warranty or representation hereunder. Contractor shall use reasonable efforts to respond to any such request. Any request for such confirmation from State as provided under this Section that is not responded to by Contractor, <u>within thirty (30) days of such request</u>, shall be deemed an acceptance by Contractor of the compatibility of such items with the Solution. If after receipt of the Contractor notice advising State of Contractor's conclusion that such attachments, features, or devices will adversely affect its obligations, <u>and the</u> State employs such attachment, feature, device, modification, change, enhancement, upgrade, or addition, Contractor shall not be liable for those representations and warranties that it notified State it reasonably concluded would be adversely affected as identified in the detailed notice.</p>
8	4.3 Extended Warranty	Contractor's obligations for warranty and post warranty services.	<p>Reject []; Accept if modified [X] as follows:</p> <p>4.3 <u>Extended Warranty</u>. Contractor shall provide <u>an initial warranty</u> for a period of two (2) years from the Effective Date <u>(the "Initial Warranty")</u>, <u>and thereafter</u> <u>After expiration of the Initial Warranty, Contractor shall provide extended warranty</u> for so long as requested by each State Entity <u>(the "Extended Warranty")</u>; a "total care solution" for the Solution, which, in addition to basic commitments contained in this Agreement, will include service guarantees sufficient to keep the Solution in good operating order in accordance with the Requirements at all times <u>(the "Extended Warranty")</u>. The <u>Initial Warranty and</u> Extended Warranty will include all <u>repair and</u> Maintenance Services, <u>to include</u> telephone and online support, remote installation assistance, troubleshooting, "break-and-fix," replacement of Equipment and components, supply of spare Equipment</p>



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			<p>and components, and other services <u>as well all fees associated with Contractor's performance of the Maintenance Services; all</u> to be described by Contractor in an <u>"eExtended wWarranty aAgreement"</u> to be prepared by Contractor and submitted to State prior to execution of this Agreement, which agreement, as approved by the State shall be incorporated into this Agreement. Contractor will, at its own expense, upon receipt of written notice from a State Entity of an <u>Initial Warranty or</u> Extended Warranty claim, <u>as applicable</u>, make all adjustments and modifications necessary to cure any defect or nonconformity affecting the Solution such that it is fully functional in conformity with the specifications and requirement set forth herein. Contractor shall immediately commence correction of all <u>Initial Warranty and</u> Extended Warranty claims, <u>as applicable</u>, made pursuant to this Section 4.3. For the avoidance of doubt <u>and except as set forth in Contractor's Extended Warranty Agreement</u>, the parties acknowledge and agree that no <u>additional</u> fees, charge, or other costs associated with maintenance, repair, modification, adjustment, replacement, or other remediation of the Solution will be owed by any State Entity in connection with the Extended Warranty. The <u>Initial Warranty and</u> Extended Warranty shall be <u>"all-inclusive," set forth in Contractor's Extended Warranty Agreement</u> and cover the maintenance, <u>repair</u> and support of the Solution and Equipment, <u>and the maintenance and administration of the Contractor owned and operated central processing units and facilities needed to provide the State Entities with the use of the Solution and Services.</u> If the parties agree that the State or any of its personnel shall perform any services relating to an <u>Initial Warranty or</u> Extended Warranty claim on behalf of Contractor, State shall receive a credit against the next Milestone Payment to the extent of the services so performed by the State. Notwithstanding the administration of any services by a State Entity on behalf of Contractor in connection with the maintenance or support of the Solution, Contractor shall at all times be responsible <u>for</u> the integrity and quality of all Services and the Solution.</p>
9	5.3 Contractor Requested Change	Contractor's ability to include additional charges in Contractor Change Requests.	<p>Reject []; Accept if modified [X] as follows:</p> <p>5.3 <u>Contractor Requested Change.</u> If the Change Request is submitted by Contractor to State, the Change Request shall, to the extent known at the time of the request, indicate schedule changes and any other items Contractor believes the Change Request is likely to impact (each an "Impact Analysis"). If a complete and final Impact Analysis cannot be specified, or if aspects of the Impact Analysis cannot be determined at the time of the request, Contractor shall so indicate on the applicable Change Control Form, including a detailed explanation of the basis of such inability of Contractor to so determine. State shall indicate its acceptance or rejection of the Change Request and/or provide a counter-proposal to the</p>



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			Impact Analysis stated thereon via a Change Response. <u>Unless otherwise mutually agreed upon by the parties in the applicable Change Request, in</u> no event shall any Contractor-submitted Change Request include any additional charges or purport to increase the any of the fees payable by a State Entity hereunder. A Contractor submitted Change Request shall not become a Change Order unless such Change Request (and its related Impact Analysis) are expressly accepted by State as evidenced by its signature on the applicable Change Control Form.
14	Contractor Proposed New Provision. 7.5 Applicable Law – State and State Entities	The State and State Entities obligations to maintain an hardened network for the Contractor Election Management System.	Reject []; Accept if modified [] as follows: <u>7.5 Applicable Law – State and State Entities. The State and State Entities shall obey and abide by all Applicable Laws, regulations, ordinances and other rules of the United States of America, the State of Georgia and all local jurisdictions located in the State of Georgia. In addition, the Equipment and Software, including all components will be provided to the State and State Entities with a hardened network for the election management software ("EMS"), in accordance with the guidelines of the United States Election Assistance Commission ("EAC"). Contractor shall not be responsible for those claims, damages, losses, judgments, penalties, costs, amounts paid in settlement or fees, which are directly related to the State or State Entities failure to maintain the network on which the EMS is installed in a hardened configuration in accordance with the guidelines of the EAC.</u>
14	8.2.1 Generally	Contractor's obligations to pay liquidated damages and/or credits	Reject []; Accept if modified [X] as follows: 8.2.1 <u>Generally.</u> If Contractor or any Contractor Solution Partner fails to meet any Performance Level or fails to perform its other obligations hereunder, Contractor shall immediately: (a) investigate and report to State on the causes of the failure; (b) prepare an action plan for State's approval to correct the failure; (c) advise State, as and to the extent requested by State, of the status of remedial efforts being undertaken with respect to such failure; (d) correct the failure and begin meeting the Performance Levels; and (e) take appropriate preventive measures so that the failure does not recur. In addition, failures to meet a Performance Level shall entitle State to receive liquidated damages and/or credits (as applicable) from Contractor, <u>as mutually agreed upon by the parties and set forth provided in the applicable Services Order.</u>
17	10.1.2 Equipment Charges	Payment Terms for the Equipment	Reject []; Accept if modified [X] as follows: 10.1.2 <u>Equipment Charges.</u> The price for the Equipment ordered by a



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			State Entity, as contemplated by the Fee Schedule, shall be set out in each applicable Solution Order (the "Equipment Charges"). Contractor shall deliver an invoice for the relevant Equipment Charges to the applicable State Entity in accordance with the following <u>after taking into account the Milestone Payments set forth in Section 10.1.1</u> : (a) fifty percent (50%) of the Equipment Charges following State's completion of initial Acceptance Testing and (b) the remaining fifty percent (50%) of the Equipment charged of the applicable State Entity's confirmation that testing of the same has been satisfactorily completed at the State Site at which such Solution is to be implemented and administered as designated by the applicable State Entity.
17	10.4 Disputed Charges	The parties obligations with respect to disputed payments.	<p>Reject []; Accept if modified [X] as follows:</p> <p>10.4 <u>Disputed Charges</u>. In the event State reasonably believes that any invoice submitted by Contractor contains any discrepancies or errors, State shall, <u>within ten (10) days of State's receipt of Contractor's invoice</u>, notify Contractor, <u>in writing</u>, of such discrepancy(ies) or error(s). The parties agree to cooperate in good faith to resolve any dispute in a timely manner. Upon receipt of State's notification of dispute, Contractor will investigate such dispute and will either (a) correct such invoice if a correction is so required and provide a corrected invoice or other such notice in writing, or (b) if no correction is required, send State written notice that Contractor has investigated such dispute and that Contractor considers the amounts due and payable and no longer in dispute. <u>Upon the State's receipt of Contractor's written notice regarding the disputed invoice, the State shall provide Contractor with a written response within ten (10) days of its receipt</u>. State shall not be required to make payment on any disputed portion of an invoice until such time as the dispute has been finally resolved by the parties. For the avoidance of doubt, a dispute regarding an invoice and State withholding payment of disputed charges as permitted under this Agreement will not permit Contractor to suspend or cease performance of the Services and Contractor shall continue to provide such Services. <u>Notwithstanding the foregoing, the State shall pay Contractor for all invoices which are not otherwise in dispute.</u></p>
17	10.6 State Status as Most Favored Customer	Contractor's obligation with respect to providing the State with Most Favored Customer pricing.	<p>Reject []; Accept if modified [X] as follows:</p> <p>10.6 <u>State Status as Most Favored Customer</u>. During the <u>Initial</u> Term, Contractor shall offer to State and the State Entities the Solution, and any other Services which Contractor offers on a general basis to its other customers at prices at least as favorable as Contractor offers or provides to any Person. In comparing the prices offered by Contractor to other customers with the prices offered to State under this Agreement, (a) the</p>



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			<p>fees paid by State hereunder for the applicable Solution shall be reduced by an appropriate amount to compensate for any installation, training, migration and other services provided by Contractor hereunder at no charge <u>to any other customer</u> and to account for any credits provided by Contractor to State hereunder, and (b) the fees paid by any other Person for the applicable Solution shall be increased by an appropriate amount to compensate for any functionality or service that State receives as part of any such Solution that are not received by such other Person. State shall be entitled to receive, at its request, such information as may be relevant for purposes of determining Contractor's compliance with this Section 10.6. State shall have the right to have independent auditors selected by State, reasonably acceptable to Contractor, review and copy Contractor's <u>relevant</u> books and records solely to determine if Contractor has complied with the terms of this Section 10.6, provided that at no time shall Contractor be required to provide any State or Contractor confidential information (other than the pricing information), and all pricing shall be shown blindly (without other customer names or other means of identification) for applicable Solution or Services, as the case may be. State shall pay all fees associated with retaining such independent auditor. If any such audit reveals that Contractor charges State more than is permitted by this Section 10.6, <u>with respect to purchases made within the previous twelve (12) month period</u>, Contractor shall promptly refund to State all excess charges.</p>
19	11.13 Delay of Payment Due to Contractor's Failure	State's obligations with respect to delaying payments to Contractor.	<p>Reject []; Accept if modified [X] as follows:</p> <p>Please note the number was off in the document provided by the State. This should have been Section 10.11.</p> <p>11.13 <u>Delay of Payment Due to Contractor's Failure. Upon prior written notice to the Contractor, if</u> the State Entity in good faith determines that the Contractor has failed to perform or deliver any component of the Solution for which the State Entity is charged as required by the Agreement, the Contractor shall not be entitled to the compensation under this Agreement corresponding to such components until such components are delivered and/or conform to the requirements of this Agreement. To the extent that the Contractor's failure to perform or deliver in a timely manner causes the State Entity to incur costs, the State Entity may deduct the amount of such <u>actual and documented</u> incurred costs from any amounts payable to Contractor. The State's right to deduct such <u>actual and documented</u> incurred costs shall not in any way affect the State's right to terminate this Agreement or any Solution Order or Services Order.</p>



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19	11.14 Set-Off Against Sums Owed by the Contractor	State's obligations with respect to set-off against sums owed to Contractor.	<p>Reject []; Accept if modified [X] as follows:</p> <p>Please note the number was off in the document provided by the State. This should have been Section 10.12.</p> <p>11.14 Set-Off Against Sums Owed by the Contractor. In the event that the Contractor owes the State Entity and/or the State any sum under the terms of this Agreement, pursuant to any judgment, or pursuant to any law, the State Entity and/or the State may <u>upon providing prior written notice to the Contractor</u>, set off the sum owed to the State Entity and/or the State against any sum owed by the State Entity and/or the State to the Contractor in the State Entity's sole discretion.</p>
12	12.1 Ownership of Contractor Products	Clarification regarding the Ownership of Contractor Products.	<p>Reject []; Accept if modified [X] as follows:</p> <p>12.1 <u>Ownership of Contractor Products</u>. State acknowledges that the Software, <u>Documentation, the training materials provided by Contractor, the design and configuration of the Contractor Equipment, the format, layout, measurements, design, and other technical information associated with the ballots to be used with the Contractor Equipment</u>, the Contractor data bases which are part of the Services, and all copyrights, patents, trade secrets, and other intellectual and proprietary rights therein and thereto (collectively the "Contractor Products") are and shall remain the exclusive and confidential property of Contractor or the third parties for whom Contractor is acting as agent or from whom Contractor has obtained the right to use the Contractor Products. For this purpose, the Contractor Products do not include the State Data, including any extract, database, output, reports or derivative works that include or are based on the State Data, or any business or transaction information <u>specifically</u> produced by or for State using the Services or Software (the "Output").</p>
26	15.1.5 Non-Infringement	Contractor's representation and warranty with respect to non-infringement of its products.	<p>Reject []; Accept if modified [X] as follows:</p> <p>15.1.5 Non-Infringement. As of the Effective Date and throughout the Term:</p> <p>(a) <u>To the best of Contractor's knowledge</u>, None of the Solution, Services, or other Deliverables, nor any portion or component thereof, nor State's use or possession of any of the foregoing as permitted under this Agreement, shall infringe or violate any right, title, or interest (including any Intellectual Property Right) of any third party.</p> <p>(b) Contractor and/or all Contractor Personnel shall be the sole</p>



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			authors of the Solution and any Revisions thereto and Contractor has and shall have full and sufficient right, title and interest (including all Intellectual Property Rights) in and to the Solution. No claim of infringement has been threatened or asserted, or is pending against Contractor (or insofar as Contractor is aware, against any entity from which Contractor has obtained such rights) (the warranties set forth in clauses "(a)", "(b)", and "(c)" collectively the "Non-Infringement Warranty").
28	15.1.14 Third Party Materials	Contractor's obligation with respect to Third Party Materials	<p>Reject []; Accept if modified [X] as follows:</p> <p>15.1.14 <u>Third Party Materials</u>. If the warranties to Contractor shall pass-through and assign all Third Party Materials passed-through and assigned to State under Sections 12.7 and 15.2 are not substantially similar to the warranties received by State to the State from Contractor hereunder with respect to the Solution and other Deliverables to be provided hereunder, or if Contractor is not permitted to pass-through and assign such warranties, then Contractor shall obtain comparable warranties from the owner, licensor, or other providers of the applicable Third Party Materials or Contractor shall take appropriate action to ensure that such Third Party Materials are otherwise compliant with the warranties in this Section 15.1 including that they are free of Viruses, preventative routines, and disabling procedures.</p>
29	16.3 Infringement Related Remedies	Contractor's obligations with respect to infringing products.	<p>Reject []; Accept if modified [X] as follows:</p> <p>16.3 <u>Infringement Related Remedies</u>. In addition to and without in any way limiting or excluding Contractor's indemnification obligations, if any party makes any claim or allegation of infringement against State or State Entity based on State's or a State Entity's use of a Deliverable in accordance with the terms of this Agreement and State or any State Entity is actually enjoined from using any Deliverables (or, if Contractor earlier believes that such claim may arise), Contractor shall, at its own cost and expense, and at its option: (a) procure for State a license to continue using the allegedly or potentially infringing materials of nature and scope identical to that contained in this Agreement and without loss, diminution or degradation in the manner of performance or functionality or (b) modify the allegedly or potentially infringing materials so as to make them non-infringing without loss, diminution or degradation in the manner of performance or functionality. If Contractor cannot complete "(a)" or "(b)" above after good faith efforts undertaken for a reasonable period of time, then Contractor shall, at its own cost and expense: (c) procure for State and the State Entities a license to a third-party product (including, if required, engaging a third-party to develop such product on commercially reasonable terms) that will serve as a replacement for the allegedly or potentially</p>



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			infringing materials without loss, diminution or degradation in the manner of performance or functionality. If Contractor cannot complete "(a)," "(b)" or "(c)" above after good faith efforts undertaken for a reasonable period of time, on commercially reasonable terms, Contractor promptly shall refund to State <u>a pro-rated all amounts</u> paid by State under the Services Order, <u>taking into account the period of time in which the State and/or State Entity was able to utilize the Deliverable</u> , (including any expenses and fees for Third Party Materials) pursuant to which the applicable materials were created.
30	17.1 Term	The parties obligations to carry forward applicable volume credits and applicable discounts in the event the parties agree to renew the Agreement beyond the tenth Renewal Period.	<p>Reject []; Accept if modified [X] as follows:</p> <p>17.1 <u>Term</u>. This initial term of this Agreement shall commence upon the Effective Date and shall remain in effect for a period of ten (10) years (the "Initial Term"). State shall have the option to extend this Agreement for a period of up to ten (10) successive periods of one (1) year each (each a "Renewal Period") under the same terms and conditions of this Agreement as in effect during the Initial Term, which options may be exercised by the issuance of a "Notice of Award Amendment" by State no later than thirty (30) days prior to the end of the Initial Term or then-current Renewal Period. Without limiting Contractor's obligations under Sections 17.6 and 17.7, in the event the parties wish to renew beyond the expiration of the tenth Renewal Period, or in any event if the parties wish to negotiate a new agreement, <u>subject to mutual written agreement by the parties</u>, all <u>applicable</u> volume credits earned in the prior terms, and at least the same level of <u>applicable</u> Discounts therefor, <u>shall may</u> be carried forward to such renewed or new agreement. As used throughout this Agreement, all references to the "Term" shall be construed to include the Initial Term, all Renewal Periods, and any Transition Assistance Period.</p>
31	17.3.8 Notice of Default	Contractor's ability to cure any defect under the Agreement.	<p>Reject []; Accept if modified [X] as follows:</p> <p>17.3.8 <u>Notice of Default</u>. State may terminate any Solution Order or Services Order or this Agreement, in the event that Contractor materially breaches any term of such Solution Order or Services Order or this Agreement and fails to cure such breach within the time period specified in State's notice of such breach <u>which shall in no event be less than</u> thirty (30) calendar days <u>unless otherwise mutually agreed upon by the parties, of receiving written notice thereof from the non-breaching party</u>. If the breach or noncompliance is not remedied within the period of time specified in the written notice, the State may (i) immediately terminate this Agreement without additional written notice; and/or, (ii) procure substitute Software, Licensed Programs or Services from another source and charge the difference between this Agreement and the substitute contract to the</p>



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			defaulting Contractor; and/or (iii) enforce the terms and conditions of this Agreement and seek any legal or equitable remedies. For the avoidance of doubt the parties acknowledge and agree that the items listed in Section 17.3 shall each constitute a material breach. If termination occurs prior to the date of Final Acceptance or the 2020 Presidential Preference Primary, whichever is later, and such termination is as a result of Contractor's breach, including Contractor's failure to cure any material defect in any Solution or other Deliverable within any applicable cure period established in this Agreement, then State may elect to terminate this Agreement and Contractor shall immediately (i) refund all applicable Milestone Payments paid by State and (ii) reimburse State for any travel expenses, professional services, out-of-pocket costs and expenses and shipping costs incurred in connection with any terminated Solution Order or Services Order and de-installation and removal of the Deliverable from the State
33	18.1 Notice	Delivery of notices under the Agreement.	<p>Reject <input type="checkbox"/> ; Accept if modified <input checked="" type="checkbox"/> as follows:</p> <p>18.1 <u>Notice</u>. All notices to be given to the parties hereunder shall be in writing and shall be deemed to have been given and be effective when delivered personally, <u>sent by commercial overnight courier (with written verification of receipt)</u>, or if sent by certified mail, return receipt requested, postage prepaid addressed to the parties at the addresses set forth below.</p> <p><u>If to State:</u> With copies to:</p> <p>2 Martin Luther King Jr. Drive West Tower, Atlanta, Georgia 30334 Attention: Chief Operating Officer Attention: General Counsel</p> <p><u>If to Contractor:</u> With copies to:</p>
35	18.14 Time is of the Essence	Time is of the essence to apply to both parties.	<p>Reject <input type="checkbox"/> ; Accept if modified <input checked="" type="checkbox"/> as follows:</p> <p>18.14 <u>Time is of the Essence</u>. Time is of the essence with respect to <u>Contractor's the parties'</u> performance of the terms of this Agreement. Contractor shall ensure that all personnel providing Software, Licenses and Services to the State are responsive to the State's requirements and requests in all respects <u>and the State and State Entities shall ensure that all of their obligations are timely performed in accordance with the terms of the Agreement.</u></p>



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36	18.22 Force Majeure	Inclusion of additional events of Force Majeure.	<p>Reject []; Accept if modified [X] as follows:</p> <p>18.22 <u>Force Majeure</u>. Neither party shall be liable for, or be in breach of this Agreement because of, any delay or failure to perform its obligations under this Agreement or thereunder resulting from any acts of God, war, insurrection, terrorism or the public enemy, riots, fire, flood, explosion, transportation delays or interruptions, labor strikes or disputes, utility or communication interruptions and acts of the federal and state governmental authority prohibiting or impeding any party from performing its respective obligations under this Agreement or such other event outside of the control of the parties (collectively, "FM Events"). A party that experiences a FM Event shall give the other party prompt written notice of the FM Event. The affected party shall use reasonable efforts to work around or to overcome the FM Event and to resume full performance under this Agreement as soon as practicable. Occurrence of FM Events will not excuse the backup and disaster recovery obligations of Contractor. Contractor will follow normal procedures for classification, resolution, resolution and escalation of incidents, even if the incident is caused by an FM Event. If an FM Event causes a material failure or delay in the performance of any applications or services for more than five (5) consecutive days, State may, at its option, and in addition to any other rights State may have, procure such applications or services from an alternate source until Contractor is again able to provide them., and Contractor shall be liable for all payments made and costs incurred by State required to obtain such applications and services from such alternate source during such period. If an FM Event causes a material failure or delay in the performance of any application or services for more than thirty (30) consecutive days, State may, at its option, and in addition to any other rights they may have, immediately terminate each affected Schedule and Services Order without liability to Contractor. State shall not be required to pay the fees that may have otherwise been payable for any period of time in which any substantial part of the Solution and Services are not provided as a result of an FM Event. Notwithstanding the foregoing, Contractor shall not be deemed in breach of the Agreement as a result of a FM Event.</p>